

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



DECEMBER, 1882.

A GLANCE at the last twelve months, although it may fail to reveal, as it surely will, all that has interested us during that time, as horticulturists, will yet assure us in shaping our course for the future. As we look over the grounds that have been judiciously improved, and then recall the condition they were in the year before, it becomes very certain that pecuniarily they are enhanced to the value of all that has been expended on them. But besides the satisfaction that the money investment is a safe one, how much pleasure have we daily derived from it, as we have seen the transformation going on before our eyes, and have exercised our taste and skill to produce it! And this is not all, for we know that year after year, new beauty will develop, and our lawn and garden will remain a constant source of enjoyment.

The flowers we have planted and tended and watched, have in their silence spoken to us various and many words of comfort, of hope, and of cheer that only the heart can know or appreciate. How in all our moods have they ministered to us! They have been the means, also, by which many of us have been able to brighten the sick room, to light up the invalid's eye, and to carry hope and resolution to the heart almost dispirited. Surely, our labor has not been in vain. The beautiful, luscious fruits that have

come successively in their seasons have been to us a source of refreshment and health. While of some kinds we may have gathered but scanty crops, yet of others there has been abundance for ourselves and others.

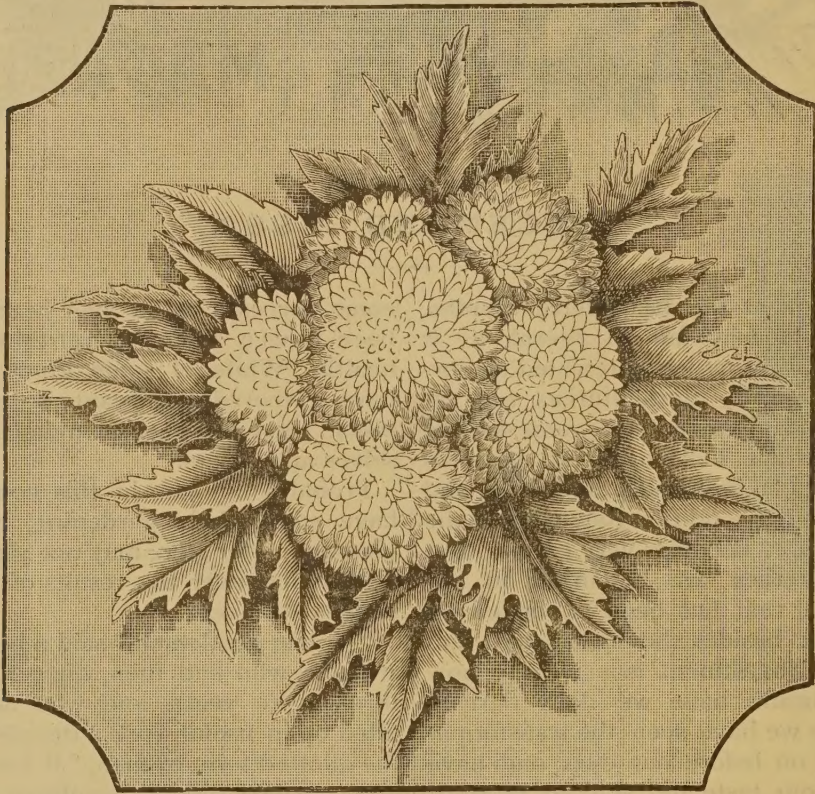
Probably but few in this country who have engaged in gardening, either for pleasure or for gain, may not glance with satisfaction over the results of this pursuit the past year.

"Young gentlemen," said a beloved instructor, who had then, himself, counted three score years, and who afterwards filled up in useful work a decade beyond the allotted term of man, "if you wish to keep a green old age, continue to be interested in all the improvements and new discoveries that are made, and in the advancement of science." Horticulture, both as a science and an art, is constantly progressive, and one who wholly, or partially, devotes himself to it will not lack for novelty to interest him. How many names, both of the present and of the past, might be mentioned of those who have maintained an enthusiastic interest in horticulture until very late in life. Is there any other pursuit more healthful or more refining, or that affords a better opportunity for mental culture? We may assuredly go forward in this course, and our lives will prove a blessing to others if they shall follow our example.

HOLIDAY DECORATIONS.

With the near prospect of the winter Holidays the subject of room decoration is one of interest almost everywhere. This beautiful custom of decking our living rooms, school rooms, churches and public halls with green foliage, handsome grasses, everlasting flowers and various other beautiful and graceful products of the plant world for the Christmas Holidays is now very generally practiced, and is highly appreciated. The question everywhere comes up, how shall we trim? What shall be the style of our decora-

The material for decoration in most parts of the country consists mainly of the Arbor Vitæ, the Hemlock Spruce, Red Cedar, or the Ground Pine, *Lycopodium*. But in some parts the Holly can be employed, and this is an exceedingly rich and beautiful material; in other places the mountain Laurel, *Kalmia latifolia*, is abundant, and this is excellent. At the South there are a number of broad leaved evergreens that are serviceable. In the dull season of the year, when most trees are destitute of foliage, the eye rests with pleasure upon these masses of verdure; still, the green foliage in



BOUQUET OF FAIRY FLOWERS AND AUTUMN LEAVES.

tions? With the view of being helpful, and of answering these questions in part, the following suggestions are offered.

In churches or audience rooms that are decorated annually there should be variety in the designs. It becomes very tame to see the same style of trimming adopted year after year, as it frequently is, in the same place. To decorate well requires originality of design, and a clever perception of the fitness of things. In trimming a room an expression can be given that will mean a great deal and will be inspiring, or there may be a slouchy air to the whole work that will dispirit and oppress one.

quantity in a room requires, to be entirely grateful, to be relieved and contrasted by white, and light, or bright colors. In England the Holly berries are in greatest favor for this purpose, as they are here, also, where they can be had, and for the want of them we resort to the bright fruits we have, such as those of the Climbing Bitter Sweet, Rose hips, the red berries of the Black Alder, and the Swamp Alder, and others. A most useful substitute for any of these is found in the little French Immortelles. These are of a bright straw color in their natural state, and are whitened by bleaching, and are dyed many bright shades. Then,

again, there are the different kinds of Everlastings which present a number of bright shades of color. A wonderfully downy, flossy looking ball of white is made from the hairs or plumes that tip the seeds of the common Milkweed, *Asclepias cornuti*; these are made by separating the plumes from the seeds and laying them together straight, and then passing a fine wire around the little bundle and drawing it tight. In most country parts these seed pods can be gathered in considerable quantities, and a little practice will enable one to make the balls neatly and rapidly. They are sometimes offered in the trade under the name of Fairy Flowers, and are made into bouquets with bright colored autumn leaves. The balls singly or made into bouquets, as seen in the illustration, can be used with the green foundation in wall trimming. Most kinds of grains and grasses, if gathered before they become old, carefully dried in the shade, can be used to great effect in this kind of trimming. In collecting grasses for preserving the best should be sought, those that grow in moist and rich ground, and are well developed. They should be watched in the early part of the season, and be gathered just before they commence to bloom. They will cure best by being tied in small bunches and hung up in a shady place, with the heads down.

Those grasses most admired for winter decorations have found their way into trade, and can be purchased when desired. Some of the principal of these grasses are *Agrostis nebulosa*, *Bromus brizæformis*, *Briza maxima*, *Briza minor*, *Erianthus Ravennæ*, *Lasiagrostis argentea*, *Lagurus ovatus*, *Stipa pennata*, or Feather Grass, *Milium effusum*, and many

others. But the indispensable grass for the best effect is the Pampas, or *Gynenium argenteum*. This grass is raised in greatest perfection in some parts of California, though it does fairly well in some of the Middle and Southern States. Nowhere, however, are such spikes or plumes produced as on the Pacific coast,



MANTEL OR WALL BOUQUET.

and great quantities of them are now raised there every year and sent to all parts of this country and Europe. One can hardly go amiss in displaying this grass, and in large rooms it can be used effectively in considerable quantities.

A very fine wall or mantel bouquet can be made with it and other kinds of grasses and other material, an illustration of one of which is here shown. This bouquet is composed of Pampas plumes well wired together for the back or foundation, which is flat, and about two feet wide by three high. As a contrast the

light, feathery hairs of these plumes, some grasses of darker color, and with panicles of decided outline are used, such as *Bromus brizæformis*, *Avena sterilis*, *Erianthus Ravennæ*, *Agrostis pulchella*



WALL POCKET OF EVERLASTINGS AND FERNS.

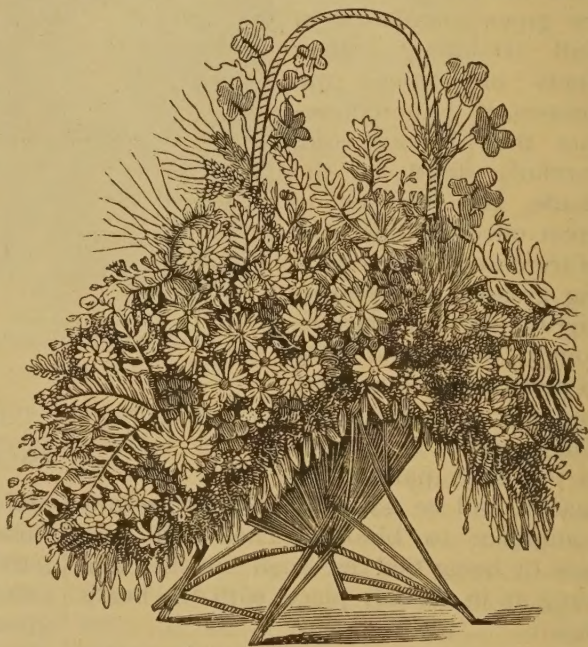
for a darker shade, and *Scirpus communis* also for this purpose. In front and against these are placed a number of heads of the Cat-tail, or *Typha latifolia*. The stems are wired together at the base as they are placed in position, and with them a few spikes of *Panicum variegatum* are worked in to give lightness to the whole. All of these varieties stand pretty well up against the back-ground, being dropped from six to nine inches from the tips of the Pampas plumes. The base of the bouquet is finished off by placing spikes of the *Osceola* plume, or *Erianthus alopecuroides*, a few inches below the Cat-tails, and following down with *Briza geniculata*, *Lasiagrostis argentea*, *Phragmites communis*, *Agrostis pulchella*, and, finally completed with *Briza maxima* all about, so that it will hang out, around, and over the top of the vase that it is to stand in. A few heads of the ripened seeds of *Clematis* with their little plumes are worked in where they will appear well, and a great variety of material may be used, the list here given being merely as an example, and not to be exactly copied.

The Pampas plumes are often dyed in bright colors, the aniline dyes being used for the purpose, and very beautiful bouquets are made with these, but it requires

skill to mingle the colors tastefully and harmoniously. When well made they are very rich and showy. If these flat grass bouquets are wanted to be placed directly on the wall instead of in vases, they can be finished with tin-foil neatly wrapped around the base and wired on.

Another handsome device for the wall, is a pocket made of basket work, the back being flat, while the front rounds out into the shape of a half basket. The interior is filled either with dry Sphagnum or with what is known as French Moss. Into this foundation are fixed by their stems a great variety of Everlasting Flowers, Immortelles in natural colors, or white, or dyed, Cape Flowers, *Helipterum Sanfordii*, *Statice*, with little panicles of *Briza maxima*, or any of the fine grasses or oats, and dried and pressed fronds of some pretty

Ferns intermingled, standing out in relief. A border of Ferns should be first placed in position, and then the Moss packed tightly in, first having dropped a little glue on the bottom inside to fasten it.



BASKET OF FERNS AND EVERLASTINGS.

The stems of the flowers and grasses are inserted by using a little awl, or stiletto to make a hole for them, and they are fastened by glue or paste into which they are dipped; glue is best as it hardens quickly.

These ornaments can be placed upon

the wall in connection with the evergreen trimmings. In a manner similar to the wall pocket, just described, baskets of Ferns and Everlastings are made, and are very graceful, cheerful ornaments. Bouquets made of Feather Grass, *Stipa pennata*, and Everlastings, and a few of the forest grasses are exceedingly delicate, airy and graceful. A little of colored *Stipa* can be mingled to advantage with the white.

What have been now mentioned are a few only of the many ornaments that can be made with the same material. Pampas plumes used alone, either white or colored, in connection with evergreen trimmings have a fine effect. A simple arrangement, and a good one, is to place, in suitable places, pairs or trios of them with the stems crossed so that they shall stand diverging from each other. There is something so very attractive about the decoration of rooms that young people are apt to enter into it very enthusiastically, and it is well that this is the case, for when attempted on a large scale it often proves far more laborious than was anticipated, and the work is completed with difficulty. It is best to understand well what is to be done before commencing, and to make sufficient preparation. As such work is usually voluntary, it is often left too much to the ladies, and this is wrong. Young gentlemen, it is to be presumed, are quite as competent as the ladies to assist, and the latter will often suggest and direct with the better taste.

In a general way, it may be noticed that green trimming in a horizontal direction, or along a wall, is very apt to be in the form of drooping curves, the lines of evergreen being fastened at regular intervals and drooping from one point to another. These curves are usually graceful and pleasing, but it would often be better, and far more striking, to have arches, that is to have the curves upward instead of downward; and then, these curves can be made to correspond to the style of architecture of the building, whatever that may be. This can be very easily done by the use of some small rods to which the evergreens are attached. These rods can be sawed out of pine or any other wood that is not too brittle. A good size is a half inch square. Our last word is, do not attempt too much, but whatever design is undertaken carry it out fully.

DUTY ON SEEDS.

It was the policy of our Government from its commencement until about twenty years ago to admit free of duty all imported seeds, bulbs, plants and trees, and, not only so, but to give them away, sending them to all parts of the country, and this latter practice is continued now. The development of the country by maintaining the pursuits of agriculture and horticulture free from taxation in this respect, was a settled course up to that time, and the propriety of it was unquestionable by all parties. Even then, although the Government of that period was making every effort in its power to obtain as great a revenue as possible, not only by increased duties but by various methods of both direct and indirect taxation, no duty would have been imposed upon the class of goods we are now considering if the seedsmen and nurserymen of this country had not, from patriotic motives, desired it, and actually petitioned Congress, as they did, that a duty should be so placed. In accordance with the petition a duty was then fixed upon seeds and plants of twenty per cent., and it has been paid by the people of this country ever since. The necessity for a reduction of custom duties on many articles has long been apparent, and at the last session of Congress a "Commission on Tariff Revision" was appointed.

Within a few months past this commission has made inquiries of the principal seedsmen of this country in regard to the amount of duty proper or desirable to be fixed on imported seeds. In regard to this subject we have not hesitated to say freely, and from the first, that we desired the removal of all duties from foreign seeds. There is no longer any need of a revenue to the Government from this source, and in accordance with the sound principle recognized by all, that luxuries and not necessities should be made to pay the revenues, and still further in accordance with the sound practice of admitting these goods free, by which we were formerly governed, this duty should now be totally abolished. Strange as it may seem, we stand alone as seedsmen at this time in this position. Our brethren of the trade wish the continuance of the duty as it now is, or if change is made, and the duty is removed

partly or entirely on those kinds of seeds that it is impossible to raise here, an increase is desired on all kinds which can be produced in this country. It is feared by them that the competition of European seedsmen will drive our home grown seeds out of the market.

We do not fear foreign competition. Many kinds of seeds can be raised to advantage only in this country, many others can be produced much better in quality here than in Europe or elsewhere. These advantages are sufficient to protect them from foreign raised seeds. But there are many kinds of seeds that can be raised better and cheaper abroad than at home, and our people should have the benefit of the difference in the cost of production. There is no justice in a law that imposes a tax upon ten millions who plant seeds for the benefit of a hundred who raise them. Let the seeds be free of duty, and let the people so instruct their law-makers at the next Congress.

A HARDY, WHITE GRAPE.

The question, what white Grape will prove in all respects most worthy of cultivation, is one that now interests many fruit growers. A number of candidates are before the public, and some of them have been well spoken of, as they deserve; but it is a rare combination of qualities that is required to constitute a good market fruit of any kind, and especially a variety of native Grape. Looking fairly over the field, and taking everything into account, and impartially noting all points of merit or demerit, and judging by the results of the past and previous seasons, no new white variety now stands better than the Prentiss, if it does quite as well. The Pocklington, the Niagara, the Lady Washington, the Duchess, each has its good points, and all will prove valuable acquisitions to the private garden, and the fruit of all of them is both handsome and good; but there are reasons to cause us to fear that they will disappoint us as market varieties. Can the Prentiss be depended upon for the vineyard? It is a good grower, has healthy foliage, bears abundantly, has a moderately thick skin, making it safe to handle; the berries hang well, not dropping from the cluster, thus constituting it a good shipping sort.

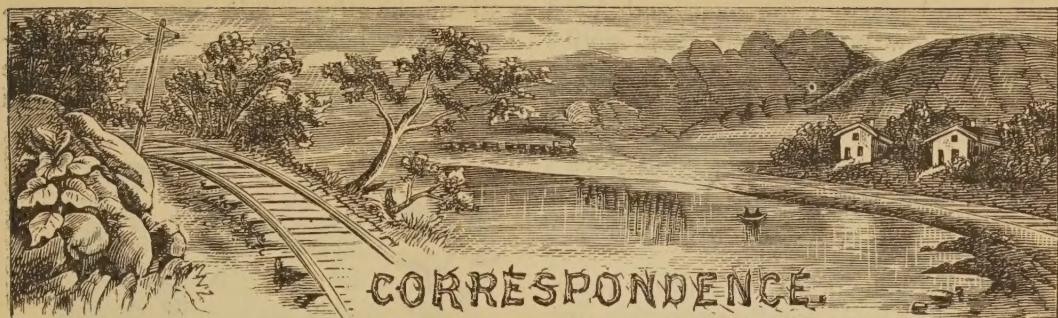
Is there any other one of the new varieties of white Grapes that combine so many good and essential qualities?

The Prentiss is said to be a seedling of the Isabella, and consequently is a pure native, and it appears to have the vigorous constitution and productive capacities of that old variety; the berries, too, are of similar form in these two kinds, but the bunches of the Prentiss are more compact. The juice is sweet, with a rich, pleasant flavor, and without foxiness, and the flesh is melting. It has been compared by good judges to the White Frontignan. The fruit ripens at the time of the Concord, and keeps well.

OUR COLORED PLATE.

Two rapid growing summer climbing plants, bearing beautiful, showy flowers are represented in the colored plate of this number. These plants, the *Lophospermum* and the *Maurandya*, are closely related to each other botanically, being allied genera of the Figwort family, and differing from each other but slightly in their structure. These two particular species have a common geographical origin, as they are both natives of Mexico. *Lophospermum scandens* was introduced into cultivation in 1836. The plant here figured is a variety of *L. scandens*, produced in cultivation. The name, *Lophospermum*, is derived from *lophos*, a crest, and *sperma*, a seed, the seed being furnished with a crest-like wing.

These plants require similar treatment, and may be considered as half-hardy annuals at the North, although they are perennials. They do well in a warm greenhouse, or they can be planted in the spring, out of doors in a warm spot, where there is a light, rich soil. As the plants grow they should be freely supplied with water, and have strings or a trellis provided for them to run on. They will make a growth of ten to twelve feet in a season, with numerous branches. The flowers of both of these are produced from the axils of the leaves, and in succession as the growth proceeds, thus making a long season of bloom, or from July to October. They are both raised easily from seeds or from cuttings, and the beauty and abundance of their bloom amply repays the tender care they require while young.



FLORAL HINTS.

I have cultivated plants for some years and learned many facts concerning them, some by experience, others by reading the various magazines and papers devoted to their culture. One thing which experience has taught me is that a plant started from the seed or cutting, and watched step by step as it makes its growth, and at length arrives at the dignity of buds and blossoms, will give us far more pleasure than the same plant bought of a florist. Still, we want new plants, and where are we to get the newer varieties but of our friends, the florists?

Sometime since I received a package of plants, and will tell you how I treated them. When received, I unfolded them carefully, and placed the moss-covered roots in a basin of water quite warm to the hand, and let them remain an hour, or until the water had become cool. Most of the plants then appeared quite fresh, but the leaves of a few had not revived and still looked wilted. I then turned off the cold water from these and added warm water and let them remain in it a little longer. Then I separated the moss from the roots very carefully, and dipped the roots in fine sand till they were well covered. I use such sand as the builders use in plastering, but if only sea sand is to be had it will need to be washed in a seive or colander in several waters, and partly dried by the stove before using. A pot three inches across the top is sufficiently large for almost any plant sent by mail. I place a piece of charcoal, or broken pottery at the bottom, fill up one-third with good compost, then press in the sand-covered roots, and fill up tightly with the soil. Then I water well, but am careful not to give too much, lest the soil becomes sodden and the roots decay. The plants were then

placed in the shade for a few days, when they were removed to the sunny window, and in a week or ten days they had taken root in their new home, and commenced growing. Pots of common red clay are the healthiest receptacles for plants. These can be set inside the ornamental ones, but I have sometimes let plants grow in the glazed or painted ones, being very careful not to over water them, as evaporation cannot take place through the sides, as in the common clay ones.

It is important to have a good compost heap, and I will tell you how mine is prepared. In the autumn, when the yards and paths are swept, the leaves are saved in a pile and mixed with sods, and left for the rains and frosts to act upon them. Occasionally the strong suds from the weekly washing is thrown over it, and all the house slops are deposited there. In this way the soil is sufficiently rich without the addition of manure, excepting in the case of Roses, Fuchsias, and a few other plants needing very rich soil. This pile of compost is frequently turned, beaten up, and "worked over," "gude man" says, and when fine and well decayed it is fit for use. I use three parts of this to one of loam and one of sand, for ordinary plants. For Cactus plants I use more sand with the addition of a little plaster. I add a little well rotted peat soil to the compost for Fuchsias, Hydrangeas and Oleanders.

In the rooting of cuttings much sand should be used with the soil, and I always bake all my compost for house plants. Perhaps some will think this is a great deal of trouble, but it is not, and it well pays, as all worms, insects or their eggs are destroyed by heating the earth in this way. I have a large baking pan which I fill with my compost when well

mixed, and place in the oven and let it remain a few hours, or, at least, until I think it is well and thoroughly heated. I am seldom troubled with insects on my plants, especially those that I raise myself from seeds or cuttings; but sometimes a strange plant finds its way to me, and if it is infested I put it through a course of "careful medical treatment."

I will tell you about it in another article if the editor looks kindly upon this one.
—MAY MACKENZIE.

Please let us have the experience.

OLD-FASHIONED FLOWERS.

With the beginning of the year the catalogues of the florists will make their appearance. They will fall thick and fast, like "leaves in Vallambrosa," and as we turn their pages we shall read of bloom and beauty, and flowers will look up from every page, and what is lacking



HOLLYHOCK.

in color our imagination will supply, until we forget we are not in the garden among the fragrant things we love. To the genuine lover of flowers I know of nothing more attractive than a catalogue. She reads about kinds she knows as she does the faces of her children, with fresh delight. She looks at pictures of them and thinks they are more beautiful than ever before. She lays down the book with a sigh, wishing it was spring, that she might go into the garden to work. Then she takes up the catalogue again,

and marks the kinds she must have. Every page bears the marks of her pencil when she shuts the book again. She knows well enough that of the hundred



SWEET PEAS.

kinds she has marked she can have not more than a dozen; she knows, too, that she will make selections a score of times before she sends for anything, but there is so much fascination in it that she goes over it all time and again, and never tires of it. She feels as I think the children do who go to gather May flowers. They know they cannot have them all, but for all that they want them,



TEN-WEEKS STOCK.

and are never satisfied with as many as their hands can hold. This one seems beautiful to them, but that one just on ahead seems more so, and it must be added to their store of fragrant treasures.

My flower-loving friend, as you turn the pages of your fascinating, tantalizing catalogue, let me whisper to you. Don't

let the new plants you read of keep you from sending for some of the old ones. We sing about there being "no time like the old time," and to me there are no new flowers quite so much like friends as



PINK.

the old flowers. I admire very many of the new ones. They are beautiful. I have many of them in my garden every summer, but some way I can't feel as much at home with them as I do with the Gilly flowers and Grass Pinks, the Hollyhocks and Sweet Peas that our grand-



LARKSPURS.

mothers grew in their prim little "front yards." I have what I call my "old-fashioned" garden. It is in a corner where none of the new flowers are per-

mitted to dwell, and I assure you that it is the most frequented place about the house during the summer. Here I grow Marigolds that make you think of balls of gold, and the smaller and more beautiful ones with petals like richest velvet. Poppies that nod every time I pass them, as if drowsy with their own sleep-producing essences, gorgeous in scarlet and white, fringed like Chinese Chrysanthemums, and double, as double as can be. Sweet Peas that shake down showers of



POPPY.

fragrance on every passing breeze, and seem to lift laughing faces to you as you bend above them. You can talk to Sweet Peas. They know what you say to them. Out of a tangle of Bachelor Buttons, blue as the sky is over head, or the Gentians are that you will find later in the woods and pasture lands, Gilly flowers lift their rosy and purple spikes. By the fence Hollyhocks stand like sen-



MORNING GLORY.

tinels in uniforms of scarlet and yellow and maroon, and great clumps of Larkspurs grow between them, while along the borders Pinks make you think of the "spice gardens of Ispahan" when you stir them.

It seems like going back to the good old times to go into this corner of our garden. There is nothing new here, only

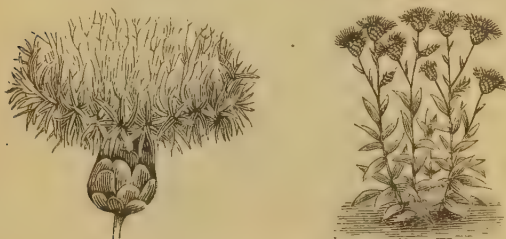
that which has been tried and found worthy. Every flower here you can depend on to do its utmost to make the garden gay. You need not coax and coddle them, as you must many of the modern flowers. Make the soil moderately rich and mellow, keep down the weeds, and you need do no more. These old flowers, like those who grew them years ago, have a sturdiness that makes them eminently capable of taking care of themselves.

So, when you send for seeds, don't for-



MARIGOLD.

get some of the kinds I have spoken of. There are others you will be delighted with. You should have some Morning Glories to grow about the windows. No flower is more fitly named. I never tire of watching the swift unfolding of their pink and white and purple blossoms in the early morning hours. If fairies use any flowers for trumpets "whereon to play their music too fine for mortal ears,"



BACHELOR'S BUTTON.

I am sure they make use of the Morning Glories. And you will want some Lavender for its old-time associations, and "Rosemary for remembrance," and scatter in the nooks and corners seeds of "China Asters" and Mignonette, and any other old flowers you can get, and when they are all in bloom, tell me if you get half the pleasure from your beds of new plants that you do out of the "old-fashioned" corner.—EBEN E. REXFORD, *Shi-
octon, Wisconsin.*

ROSE GOSSIP.

Of the many new Roses sent out since the year 1879, comparatively few have, as yet, made their mark at the various English Rose Shows. The National Rose Society of England held three exhibitions the past summer, one at Bath, June 28th, at South Kensington, July 4th, and at Darlington, July 19th. The Show at South Kensington, in particular, was very successful, and was the most important of the kind ever held. This gratifying fact is an indication that interest in the lovely Queen of Flowers is by no means dying out. A first prize was awarded to Messrs. PAUL & SON for twelve Roses not in commerce previous to 1879. As several of these flowers have already been, and others will soon be, offered by our American dealers, it may be well to know the varieties which in the opinion of competent and critical English judges were considered to possess points of merit. Notwithstanding the fact that many Roses which succeed in England are often failures here, yet it is a point in their favor when they do well there, and we could scarcely hope that a Rose, worthless in England, would be an acquisition in this country.

H. P. Rosiereste Jacobs, sent out by Veuve Ducher in 1880, was very highly spoken of as a large, well formed flower, deep crimson in color; Countess of Roseberry was pronounced large, cupped, and of bright rosy-carmine, a grand flower, and one of the finest of recent introduction; Catherine Soupert, pleasing in color, but particularly high in quality. Ferdinand Chaffolte, a splendid variety of the most brilliant crimson, one of the finest Roses of its color sent out of late years; Madame Ducher, rich red, large and good; R. W. G. Baker, crimson, a good and useful flower; Madame Isaac Perriere, crimson rose, a pleasing flower of great promise; George Moreau, rich rose pink, large and well built; Julius Finger, blush pink, a good second class flower; Lady Sheffield, bright pink, a superb Rose, which bids fair to occupy a high position for many years hence; Masterpiece, a good Rose; Crown Prince, deep crimson, a grand Rose, combining large size with rich coloring and high finish; Mrs. Jowitt, a fine crimson flower of large size; Pride of Waltham, large and fine; Mons. Thouvenal, large and

very good; Comtesse de Camando, Madame Alfred Dumesnil, Madame Montel, and Edward Andre, were commended, whilst Alfred Leveau, Madame Julie Weidman, Marguerite Manoin and Comte de Mortemart were pronounced of secondary consideration, if not absolutely poor in quality.

Of new Roses not yet in commerce PAUL & SON'S Queen of Queens attracted much admiration, and was described as of large size, globular in form, very full and of a delicate pink color, bright pink in the center. The habit is vigorous, and the variety promises to take a very high position.

Mr. BENNETT exhibited three magnificent new Roses. Her Majesty, a Hybrid Perpetual of the Baroness Rothschild type, extra large, very full, globular and beautifully finished, the color a pleasing shade of pink. Hybrid Tea, Lady Alice FitzWilliam, with large flowers, grand petals, color delicate blush, and exceedingly beautiful in the bud. Hybrid Tea, Earl Pembroke, a rich crimson color, extremely fragrant.

The French growers are already announcing the new recruits of 1882. The latest issue of the *Journal des Roses* contains descriptions of nearly thirty novelties, with a promise of more to come. An agreeable feature in the list of new Roses is the respectable number of white, flesh pink and other very light Roses announced. Heretofore the Hybrid Perpetuals of very light shades have been restricted in number. A valuable addition to this class will be PAUL & SON'S White Baroness, like Mabel Morrison, a sport from that Rose of incomparable loveliness, Baroness Rothschild, but with the advantages of being fuller and of a purer white than Mabel Morrison.

White Baroness, with Her Majesty and Queen of Queens, will make a magnificent trio of English light Roses.

LEVEQUE ET FILS announce three which may be added to the list of this class, and if the descriptions be accurate they will doubtless prove valuable. They are as follows: Hybrid Perpetual, Comtesse de Mailly-Nesle, very large and full, of fine form, beautiful clear flesh color shaded with white, blooms abundantly the season throughout, while plant is vigorous. Hybrid Perpetual, Madame Veuve Alexandre Pommeroy, an extra large, well

formed flower, delicate rose shaded with bright rose. Hybrid Perpetual, Madame Olympe Terestchenko, white, washed with crimson rose, coloring of great beauty, and a flower of exquisite finish.

Another new light Hybrid Perpetual Rose is offered by PERNET, called *Merveille de Lyon*; it is described as extremely large, cup-shaped, full, and opening perfectly, the color is pure white, the center slightly tinged with satiny rose. This flower is a seedling from Baroness Rothschild, but is much larger, fuller, and the petals more rounded.

GONOD comes out with a red *Souvenir de la Malmaison*, called *Malmaison Rouge*, and is a sport from the well known *Souvenir*. The flower is medium in size, and deep velvety red in color.

The perplexities of Rose amateurs are to be increased by the creation of a new class. SCHWARTZ, of Lyons, offers a Hybrid Ayrshire, Madame Vivian-Morel, a seedling from an Ayrshire crossed with Cheshunt Hybrid; blooms in corymbs, flower medium in size, full, good form, and is carmine-rose shaded cherry-red, reverse of petals purplish white. This flower has the Tea fragrance. Andre Schwartz, a red Tea, raised by the same grower, will be offered by Messrs. A. ROLKER & SONS, of New York.

An English Rose, Mr. NOBLE's Duchess of Connaught, is very highly spoken of. The flowers are large in size and perfect in shape, with the powerful fragrance of the old Cabbage Rose, whilst the plant is full of vigor.

Alfred K. Williams and E. Y. Teas seem to be popular exhibition flowers in England, as they take a front rank, and are prominent at all the Rose shows.

An instance of a bloom of *La France* attaining the extraordinary size of nineteen inches in circumference and four and one-half inches in height, when only three-quarters blown proves pretty clearly that the English climate possesses advantages for successful Rose growing which are lacking in ours. When will *La France* enter a class to remain there definitely? Hybrid Tea and Hybrid Perpetual claim it each in turn. The *Gardeners' Magazine* and *Rose Annual* of last year speak of it as a Hybrid Perpetual.

For another year, at least, the great

German nation may breathe freely. The legendary Rose-tree of Hildesheim bloomed in great profusion the past summer, and still shows vigor. According to an old tradition the German Empire is to succumb on the death of the famous Rose-tree.

With me, Victor Verdier may be called the "Last Rose of Summer," or rather, of the season, for at this date, October 20th, it is covered with buds and flowers in profusion, the latter as large, though not quite so full, as the June blooms. Others, such as Marguerite St. Amande, Peonia, Washington, &c., gave flowers also, but none so large and perfect as Victor Verdier.

Why do people try, and generally fail, to grow Hybrid Perpetuals from cuttings, when it is so easy a matter to propagate by layering? Even those obstinate subjects, Baroness Rothschild, Marguerite St. Amande, Madame Ball, Persian Yellow, the Mosses and others, grow readily from layers. This hint is addressed to my brethren, the amateurs.—F. LANCE.

THE SHELL FLOWER.

The Tiger, or Shell Flower, *Tigridia conchiflora* is a bulbous plant with a simple flexuous stem and straight veined, ensiform leaves, producing its large ephemeral, inodorous flowers during the summer months. It belongs to the order Iridaceæ, and is a native of



Mexico, from which country it was introduced in 1823. The flowers are produced from July to October, on stalks growing from one foot to one and a half in height, and are of the most exquisite beauty as well as being of a singularly curious shape. The flowers are very large, about four inches across, and of the richest orange color, variegated with golden yel-

low and spotted with black. It is one of the most singular as well as the most beautiful of all our summer flowering bulbs, and although it has been in cultivation for many years it has never been cultivated as generally as it deserves to be, on account of the difficulty of keeping the bulbs throughout the winter season.

The bulbs can be planted at any time from May to July, but in order to obtain a succession of bloom, repeated plantings should be made every two weeks from the first of May until the first of July. The bulbs require to be planted about three inches deep in ordinary, good, garden soil, and require no special care. When the frost has destroyed the foliage the bulbs can be taken up, and after being dried, stored away in a dry place, not too hot, but where they will not freeze, until the time of planting in the spring.

Mice are very fond of the roots or bulbs of the *Tigridia* at all times, and it is necessary to guard them well from these destructive pests.—CHARLES E. PARNELL, *Queens, L. I.*

CULTURE OF THE DANDELION.

The Dandelion is found growing in a wild state in most all parts of the world. It is used as greens on the tables of the rich and the poor; in fact, the Dandelion is the king of plants for this purpose, and is admitted to be the most healthy. It is about four years since I first gave the



WILD DANDELION.

Dandelion my special care and study. There are several varieties of Dandelion, but the Improved French Broad Leaf is the only one I consider worth cultivating for market. I have made a decided improvement in this variety. I have raised them so that a single plant weighed over four pounds, and have had hundreds of them that would weigh three pounds. The seed should be sown in the spring in the open ground, in drills six inches apart, in a light soil, and kept partly

shaded till the plants are nicely out of the ground. When they are six to eight inches high I shear off the tops within two or three inches of the ground, and then transplant them into rows twelve by twenty-four inches apart. At this dis-



CULTIVATED DANDELION.

tance 21,780 plants stand on an acre. I plant on a deep rich soil, for there is no plant that likes to be petted better than the Dandelion. The plants will be ready for market the following spring. When the buds begin to start the plants are ready for use. I take a knife, turn up the leaves on one side of the plant and cut



HEAD OF DANDELION CUT FOR MARKET.

them just low enough below the ground so that the leaves will not fall from the crown. When it is convenient, I cut them when the plants are dry. All the poor leaves are picked off, and the heads then rinsed in a tub of water, and afterwards allowed to drain. I now straighten out the leaves, and then place the head in the scales, allowing two pounds to a

bunch. The scales stand upon a table whereon are fixed two upright pins to lay the heads in, in the same manner as for bunching Asparagus. They are now tied with a stout string and then are ready for market. They appear neat and attractive when placed on sale, and are as easily handled as a bunch of Asparagus. They do not wilt so easily when put up in this way. If they are to be kept any length of time they should be plunged in a tub of cold water and set away in a cool, dark place. I find a ready sale for all I can grow at prices varying from fifteen to thirty cents a bunch. I have cut about a ton this year from a bed of 8,000 plants, besides raising a quantity of seed. The plant does not attain its full growth until the second year. The bed should be thoroughly worked over and reset every two years in order to get the best results.

If any of the readers of the *MAGAZINE* have had any better success, or can suggest any improvement on my mode of culture, I should be pleased to hear from them. It is a new enterprise about here, and a green business, and the greener people believe me to be the greenest.—PETER S. CHASE, *Brattleboro, Vt.*

PLANTS FOR BRACKETS.

We have some plants which show to the best advantage when kept by themselves, and in positions not specially adapted to display ordinary plants effectively. For growing on brackets the best plants we have are the drooping varieties of Fuchsias, the Eupatorium and Begonias. No one knows what grace there is in the Fuchsia unless he has seen it growing on a bracket placed about as high as one's head, and all the branches, of which there should be many, allowed to droop over the pot in which it grows. To secure plenty of branches the center of the plant should be pinched out when it is small. Where one stalk was there will be two shoots thrown out. These, in turn, should be pinched back, and at least a dozen thrifty stalks should be induced to grow from the base of the plant. The varieties which seem best adapted to this style of growth are *Ara-bella*, *Avalanche* and *Aurora superba*, all

pink and white kinds. The double varieties do not seem to be so fond of drooping as the single ones, though they are not such robust growers as a general thing. To grow the Fuchsia well I would prefer a compost of one-third rich leaf mold, one-third turfy matter from under sods in old pasture, and the other third of clean, sharp sand. This proportion of sand may seem large, but I have never grown such magnificent plants in any other soil as I have in that made up in the above proportions.

To train the plant most effectively it should have no training at all. This sounds paradoxical, but a Fuchsia which it is desired to have droop can take care of itself better than we can. It knows precisely how to droop naturally, and to be natural is the secret of all grace. When the branches have reached a certain stage of growth they will begin to curve, and by and by the weight of foliage will bring them down over the edges of the pot; and it will be completely hidden.

As I have said, to display itself to the best advantage the Fuchsia should be kept on a bracket about as high as one's head. I prefer, for this use, the iron brackets having a long arm which will allow of the plants being swung in front of the glass or away from it without disturbing the plant at all. The branches will often reach a length of four feet, and be loaded down with bloom. It is a fancy of mine that they bloom more profusely when grown in this way than when tied to a trellis or stakes, but it may not be so. Certainly, I have never seen any that bloom more profusely than mine do, and I have grown all the varieties I have named in the way I am telling about, for the last five years. My plants win the admiration of all who see them, and I take especial pride in them.

For temporary decoration of the parlor plants grown in this way are most effective. I often bring in a Fuchsia loaded with flowers, and place it for a day or two on a corner bracket. It fills the corner with beauty that no costly piece of statuary could give it. I never leave it there for more than a day or two at a time, for the lack of sunshine will often cause the smaller buds to drop.

Begonias, especially the tuberous-rooted varieties, make very fine drooping plants,

and their rich leaves and brilliant flowers make them of great value in brightening and beautifying a room. The Eupatorium is only inferior to the Fuchsia because of its lack of color. If the paper of the parlor walls is dark, then the feathery white clusters of its flowers show to excellent advantage. Combined with pink and white Fuchsias it is simply superb, because its branches are not inclined to droop quite as much as those of the Fuchsias, and it forms a spread of foliage and bloom above the pendant branches of the Fuchsias laden with their bright flowers. Last Thanksgiving we fastened a two-pot bracket on each side of the mirror in the parlor, and on the lower arm of the bracket we placed Fuchsia, and on the upper, pots of Eupatorium Mexicanum. The effect was exquisite. On each side of the glass the Fuchsia branches drooped, and were duplicated in the reflection. Above, and reaching quite across it were the branches of the Eupatorium, covered with pure white bloom. The arrangement was greatly admired, and it was most easily made, because the plants used had been kept growing on brackets and encouraged to adapt themselves to the conditions of such a manner of culture.

If you have heretofore tied up your Fuchsias and Eupatoriums, reverse the conditions and let them go down and take care of themselves after you get as many branches started as you think necessary, and see if you do not think they are vastly more effective and beautiful in this way.—EBEN E. REXFORD, *Shiocton, Wis.*

A YOUNG ORCHARD.

I have just finished setting a new orchard of two hundred trees. I prefer to set Apple trees in the fall, having several times tried both spring and fall. I have a much better growth the next summer when I set the trees in the fall. As soon as the transplanting is finished I make a good mound about eighteen or twenty inches high around each tree, to prevent its being shaken by the wind, and it also secures it partially from mice; but, as I once lost a large number of fine trees from mice, just after a fall of snow, I am always suspicious of them at such times, and tread the snow firmly about the trees.—W. HINDS, *Orleans Co., N. Y.*



The Mission of Flowers

Violet why aze youz eyes of blue
 Wet with tears of the morning dew?
 Rose-lud why do you blush and start
 And hide the crystal gem at youz heart?
 Sify what aze you doing there,
 With youz bells a-swing in the balmy aize?

A light breeze born of the morning
 hours,
 Softly stole o'er the banks of flowers;
 And list'ning closely, I seemed to hear,
 Chimed in silvery voices clear—

"We are blessing the earth with our
 wealth of bloom;
 We are lading the air with a rare per-
 fume;
 All things have their mission, and God
 gives us ours,
 And this is a part of the mission of
 flowers:
 To give life to the weary and hope to
 the sad,

Fresh faith to the faithless, new joys to the glad;
 To cheer the desponding, give strength to the weak;
 To bring health's bright bloom to the invalid's cheek;
 To blush on the brow of the beautiful bride;
 To cheer homes of mourning where sorrow betide;
 To rob dreaded Death of a part of his gloom,
 By decking the dear one arrayed for the tomb;
 To furnish the home with a lasting delight,
 With our perfumes so lovely, our blossoms so bright;
 To hallow the homestead, embellish the lawn,
 Reflecting the tints of the roseate dawn.
 In low, voiceless language, we're striving to tell,
 How God, in his wisdom, doth everything well."

Each blossom, each bud and each leaf has its use,
 For through it some sense of His grace may diffuse;
 In nature's own symphony each is a tone
 With a measure and meaning, and force of its own;
 Our Creator has written on every leaf
 And flower that unfolds in the summer-time brief,
 A record of love and kindness and care,
 That surround us with beauty and grace everywhere.
 So, Violet, Rosebud and Lily can show
 God's bountiful love to his children below.

—"DART FAIRTHORNE."

A SONG OF A BOAT.

There was once a boat on a billow;
 Lightly she rocked to the port remote,
 And the foam was white in her wake, like snow,
 And her frail mast bowed when the breeze would blow,
 And bent like a wand of willow.

I shaded mine eyes one day when a boat
 Went curtesying over the billow,
 I marked her course till, a dancing mote,
 She faded out on the moonlit foam,
 And I stayed behind in the dear loved home;
 And my thoughts all day were about the boat,
 And my dreams upon the pillow.

I pray you hear my song of a boat,
 For it is but short:—
 My boat, you shall find none fairer afloat,
 In river or in port.

Long I looked for the lad she bore,
 On the open, desolate sea,
 And I think he sailed to the heavenly shore,
 For he came not back to me—

Ah me!

—JEAN INGELOW.



A PLANT COLLECTOR IN JAPAN.

The account of the Rambles of a Plant Collector, published from time to time in the *Garden*, and from which we have already made selections the past year, still continues to make its appearance, and much of it is so interesting we lay it before our readers with pleasure.

The writer, C. MARIES, in a late issue, reports his visit to Nikko, the great Shrine of Japan, and the burial place of the first and third shogun.

"The town of Nikko itself is supported by pilgrims, who come here from March to November. Most of the houses are hotels and lodging houses, and many signs are seen in English, such as Sayoken Hotel. I found this a very good stopping place, and I should mention the fine old stunted Yews in the garden, cut into all kinds of shapes. A pretty garden and lawn lie in front of the principal room, made in perfect Japanese style, with the small lake, bridge, rock, and Azaleas, the whole place being not more than ten yards across. Orontiums, Portulacas and Andromedas occupied a border on one side."

Rambling along from the hotel toward the mountain in front, he says, "To the right is the celebrated mountain Nantai-san, about 7,500 feet high, covered to the top with vegetation. Near us to the right is a dense mass of *Cryptomerias*, the finest specimens I have ever seen in Japan, specimens eight feet in diameter being quite common. The road past the bridge ascends the mountain by irregular stone steps under a winding avenue of *Cryptomerias*, with an irregularly set stone wall on each side, dripping with water, and covered with an immense variety of Filmy Ferns and Mosses. This is the home of *Conandron ramondoides*, although I often saw it on exposed rocks,

but wet. A beautiful white *Saxifrage*, too, grows abundantly here. Above us on the *Cryptomerias* were masses of *Davallia* and *Dendrobium Japonicum*."

A description of the Temple is here omitted. "At the back of the Temple, in a beautiful solitary forest, was the tomb of the third shogun, a massive stone structure with a raised center, surmounted by a splendid bronze, containing the ashes of the departed hero. I shall never forget the solemnity of the place; all things round were just what a man of horticultural tastes would desire for his last resting place — on the side of a fine mountain in the heart of a forest consisting of all the finest and rarest trees. The walls round were perfectly covered with *Hymenophyllums* and other Ferns; on one side a fine *Abies polita* spread out its branches over the tomb. At one corner of the grave was planted a *Catalpa*, and there used to be a *Paulownia imperialis*, but it is now dead, the tree being short-lived in Japan. There is another Temple similar to the one described with just the same sort of things surrounding it. There are fine specimens of Box trees, Yews, *Podocarpus*, *Sciadopitys*, Maples every where, and the Azaleas are truly grand.

"I visited Nikko several times, and in my rambles came on places where the foot of a foreigner had seldom trod; in fact, I knew every hunter's track all over the mountains. One solitary path under gigantic trees of *Cryptomeria* and *Abies bifida*, (firma,) hung with Ferns and Mosses, led to a temple high up on the mountain, unfortunately almost in ruins. I went first there with a hunter who told me the temple belonged to three gods — the god of thunder, god of wind, and god of the forest. The two former had occasion to fall out with the

god of the forest, and they decided to destroy three trees planted by the forest god. I should say that these trees were *Cryptomerias*, planted in a line on the very top of a point on the mountains. One night the two gods of the elements created a great storm, and when the forest god came in the morning he found his favorite trees blown down; to defy the other two deities, he caused three more trees to spring up in the places of those uprooted. And now, at this very day, three high trees, measuring over six feet each in diameter, are growing in a line, and on each side of the hill are three old decayed trees, hollow and rotten. One measures twelve feet in diameter, and the other two are over nine feet. This, of course, to a Japanese, is sufficient to prove the truth of the story. There are about ten magnificent waterfalls at Nikko, varying from fifty feet to five hundred feet, and these form great attractions for sight-seers from all parts of the world. I have never seen such fine falls."

Proceeding up the mountain the different species of *Spruces* and *Abies* are noticed and described. "At about 3,000 feet the forest changes visibly, and we leave the *Cryptomerias* and *Abies bifida* behind. *Abies Tsuga*, a species of *Styrax*, and Willow, Maples, Oaks, Walnuts, Hazel nuts, *Castaneas* form the mass of trees every where, and some magnificent scenery met our view as we wound round a point of the mountain, or crowned a gorge over the noisy torrent below. At 3,000 feet *Abies polita* grows wild. I have only met with it on one mountain, and it was not common there. Young trees of it are very pretty, but old ones have a rather poor appearance—possibly, however, owing to the thick undergrowth killing off the lower branches. At 4,000 feet I passed over a pumice swamp, thick with very large Maples, consisting of about five species and about one dozen varieties of *A. polymorphum*. The finest in autumn is *Acer vitifolium*, a variety which I sent home; it has bright crimson leaves in autumn, and is an under-shrub, seldom seen in open, exposed situations.

"I found *Abies brachyphylla* growing in a swamp where, if you dig six inches, water is found; in some places the water was hot very near the trees, it being the crater of an old volcano. This *Abies*

seems to grow in almost any situation and soil. *Lilium medeoloides* and *L. cordifolium* grow in abundance here, always in shade and in new decomposing leafy matter. *L. auratum* was growing on all the exposed grassy slopes near Fuzi-Yama to an elevation of 4,000 feet, but always in tall, rough grass from two to four feet high. I seldom saw this Lily in or under trees, always in grass or amongst low bushes, and always in peaty, leafy mold with pumice underneath, and not more than three inches of soil on the pumice."

The cultivation of the *Iris* in Japan is quite peculiar. "A piece of ground is chosen that can be easily flooded, and it is well dug or plowed while under water. When the plants commence growth they are planted in rows, generally three feet apart, in this mud bed, or sometimes after flowering is over. Water is allowed to stand all round the plants till after flowering. It is then gradually drawn off and the ground is allowed to dry up for the winter. I believe the Japanese never water the plants in winter, and I think they are protected with straw, leaves, or ashes at that season. They manure with excrement only, and this is put on in a weak liquid state every week or so when the plants are growing. This is how Japanese nurserymen grow *Irises*; if any of my readers should go to Japan, don't miss the *Iris* nurseries at Horikiri, about three miles from Yedo, in May. *Irises* are also grown continually in water, but never so fine, nor so healthy as when grown as just mentioned."

The remarks in regard to the *Lilies* are no less interesting. "The following are always cultivated. I have never seen them wild, and doubt if they do grow wild in Japan. I imagine they did once upon a time, but now they are only to be found under cultivation, viz.: *Lilium lancifolium rubrum*, *L. lancifolium album* and varieties, *L. virginale*, *L. Brownii* and *L. Japonicum*. The mountain road to Fuzi-Yama is a mass of *auratum* in June and July; every open patch of ground is covered with it. *Gloriosoides* is a Chinese Lily, and I consider it to be one of the most beautiful of the Lily family. *L. formosianum* is from a mountain in South Formosa. *Lilies*, such as *L. Thunbergii*, in almost all cases are found wild in sand and peaty leaf soil on pumice;

very often one sees a bulb of *L. auratum* sticking on the black earth by the mountain track. I have never seen above twenty-five or thirty flowers on a wild plant of *L. auratum*, and it seldom grows above four feet high, while in some places in England it often reaches more than three times that height. It is covered with snow in winter. *L. cordifolium* and *medeoloides* always grow in shade in the forests; *L. gloriosoides* is also a shade-loving plant."

ROOF GARDENING.

A visitor to Edinburgh describes an example of roof gardening found in that city in the following language: "The Great Waverley Market, it must be stated, is in a fringe of the ravine, the roof of the building being level with Prince's Street. This is laid out as a garden, and so admirably is it done that a stranger would never suspect that the fine promenade of cement walks, the long curving borders of flowers, the carpet beds, the patch of lawn, and numerous well filled vases along the balustrades, were arranged on the top of what may be termed a gigantic hall. But they are, and the effect is most pleasing. All forms of decoration are represented here—ribbon gardening, panel gardening, subtropical gardening, carpet bedding, excellent in design and execution, with annuals and herbaceous plants in suitable places in the borders. The bronzed vases, numbering considerably over a hundred, are a fine feature, relieving the flatness that would otherwise prevail. They are not trimmed and formal, but clothed with a floral drapery of *Tropæolums*, Sweet Peas, and similar free-growing plants that surround the *Cordylines* or *Aloes* that occupy the central position. The garden is surrounded by palisading, and the drainage from the beds is conducted into pipes close to the roof inside the building. They are not seen unless sought for, and the whole arrangement is a great success.

"We hear, from time to time, of roof gardening in London as represented by a small conservatory; but all the roof gardens in the metropolis put together bear no comparison with this solitary example at the top of the Waverly Market, Edinburgh."

Extent of roof is about 180 by 450 feet.

A WHITE TIGRIDIA.

The *Revue Horticole* gives an account of a new White Tigridia, which appears to have originated from *Tigridia conchiflora*, at Angers, France. This new candidate for the favor of the horticultural public is described as having large flowers of a dead white, or appearing like mother of pearl, marked at the base of the divisions with large reddish brown spots, a color which upon a yellowish foundation, and with the white of the petals, produces a magnificent contrast. The stylar column is in the form of a long tubular sheath of a beautiful yellow color, terminated by three blades of a violet shade, enclosing within a style with white, slender divisions. Like the other Tigridias, this one has flowers of short duration; but, like the others, also, the spathes or floral bracts contain a certain number of flowers which open in succession, and thus prolong the flowering season.

A NEW DOUBLE BOUVARDIA.

According to the same journal, a rose-colored, double *Bouvardia* has been obtained by a sport from the double white *Bouvardia*, Alfred Neuner, at the horticultural establishment of HAAGE & SCHMIDT, at Erfurt, Prussia. This sport showed itself last year and was propagated, and remained constant. Thus this remarkable plant, Alfred Neuner, which was a sport from a single white variety, *B. elegans*, has produced a second sport with double, pink or rose-colored flowers for our readers will remember that the variety, President Garfield, described in our last issue, had precisely this origin, it was a sport from *B. Alfred Neuner*.

THE HARDY HYDRANGEA.—In English gardens *Hydrangea paniculata grandiflora* is sometimes planted out in large masses, and in that way produces a very fine effect. A writer in the *Garden* says, "Single plants of this *Hydrangea* are attractive, but when seen bedded out in quantity, its interest is increased ten-fold."

PLANTS FOR NAMES.—A "Subscriber," in Canada, sends thirteen specimens of plants for names. If he will send us his name and address, neither of which were given, we will supply the information desired.

A NEW DRESS FABRIC.

It is reported that a novelty in materials is "made of China-grass fibre, *Boehmeria nivea*, such as was once only used for pocket handkerchiefs. It is at Zittau, in Saxony, where this new material is made, and is, it is believed, the only one of its kind in Europe. From the fibre stalks of China-grass, which is a kind of Nettle, a material is made which is as fine and brilliant as silk. It can also be dyed in every color. It may be used as a substitute both for silk and wool, and is especially adapted to make fringes and lace."

The China-grass is the plant called Ramie, about which much has been published in this country for several years. It has been well tested, and found to thrive well in nearly all parts of our country as far north as New Jersey. This new method of preparing it may give a stimulus to its cultivation sufficient to bring it into that prominence as a textile fabric which it is probable it would have ultimately attained in any event.

WOOD FOR BOOK COVERS.

A new application of wood in London is noticed by the *Gardeners' Chronicle*. It is the use of thin shavings of veneers of different kinds of woods for book binding, such as have been employed in this country for wall hangings. The designs are described as very tasteful. "The woods mostly used are American Black Walnut, Lime, Oak, Holly, &c., but all known woods can be worked into the designs. The veneers are very thin, so that a large number can be taken from one block; this accounts for the cheapness with which they can be supplied. After being fixed upon the wood they can be either rubbed down with oil, or French polished."

DOUBLE AURATUM LILY.—A flower of the Gold-banded Lily with nine perfect parts instead of six is noticed by the *Gardeners' Chronicle*. The stamens and style retained their proper form and number.

A LARGE COCKSCOMB.—A Cockscomb raised this season in Glasgow is described as twenty-seven inches in length, and fourteen inches across, and in color was all that a Cockscomb should be.

TREE PLANTING IN SCOTLAND.

The *Manchester News* gives the following account of the Duke of Athole and his work as a tree planter. "There are already vast woods and plantations in Athole and Dunkeld, and as, of course, they exist for use as well as ornament, large numbers of trees have to be planted annually to maintain the woods. Indeed, every year the Duke plants from 600,000 to 1,000,000 trees. During this season a plantation covering 2,000 acres has been completed. It may be remembered that the Duke of Athole's plantations were thinned of 80,000 trees by the gale which destroyed the Tay bridge. When the planter Duke began operations on a large scale in 1774 the Dunkeld hills were almost bare. During his life the Duke, who may be described as a great benefactor to his country, planted 27,000,000 trees, covering 15,000 acres."

PAPER BY A NEW PROCESS.

A late English publication gives an account of a new process of preparing fibres for various purposes. Short fibres will be made into paper pulp, while the longer ones will be employed for textile purposes. "The fibres are cleansed, isolated by boiling in bisulphite of magnesia, which removes the encrusting matters, and leaves the woody fibres isolated and pure. By this means every kind and quality of paper can be speedily and economically produced from wood, and such fibres as jute, hemp, flax, &c., be employed free from gummy matter, which is now so difficult to remove." This means cheaper paper, if all proves true.

HARVEST FESTIVALS.—The *Gardeners' Chronicle* notices that the desire for contributions of flowers and fruits for church decoration at the time of the Harvest Festivals is becoming excessive; that it exacts so much from the gardeners that it is becoming burdensome, and says quite plainly that there is a greediness shown in this matter by church people that is unbecoming.

SINGLE ROSES.—The raisers of new Roses in France now send out single varieties among the novelties, selecting those of vigorous growth and bright colors.



FLOWER FOR NAME.

I send by this mail a box containing a flower for name. It is a hardy perennial, spreading by underground branches, and blooming from early summer till late fall. It is called here the "Fair Maid of France," but in New York, where I obtained it it is called "Bridal Wreath." Will you give its botanical name in the MAGAZINE? One subscriber asked how old Orange and Lemon trees were before bearing. If he meant them grown in pots, you gave too long a time, for they often bear when two years old that is, mature the fruit when the trees are grown from cuttings taken from a bearing tree. I have two Orange trees sixteen months old, one has an Orange half grown, and the other is now budded in several places. If you can give me the name of the plant, you will oblige—MISS KATE M., *Iowa City, Iowa.*

The specimens of flowers received with this inquiry were those of the double flowered German Pellitory, *Achillea Ptarmica flore-pleno*. It is a very pretty plant and a remarkably useful one, since its little double white flowers, which are valuable for bouquets and flower work of all kinds, are borne plentifully all through the fine weather. As the plant is quite hardy its culture is of the easiest kind. Its common name is that given above, and not Fair Maid of France, which belongs to the Garden Buttercup, *Ranunculus Aconitifolius*; nor is it Bridal Wreath, which properly applies only to *Spiraea prunifolia*, the flowers of which, by the way, are quite similar in appearance to this *Achillea*. The answer about the bearing of Orange and Lemon trees referred to, related to seedlings, and the time mentioned will be found as near correct as may be stated in general terms, there will be some difference with different seedlings.

CHARLES DOWNING.—This well known horticulturist received some severe injuries a few weeks since, in New York, when alighting from a street car, being struck by a horse coming behind him. We are pleased to say he is convalescent.

DRACÆNA AND RIVINA.

Please let me know through your MAGAZINE if the *Dracæna* requires a warm or cool temperature in room culture, and if a north window would suit it. Also, the proper treatment for *Rivina*, sun or shade, heat or coolness.—MRS. A. C., *Perth, Ont.*

The *Dracæna* will do well at a north window. A temperature of moderate warmth suits it, that of an ordinary living room being quite appropriate. It should be carefully kept clean by washing or sponging the leaves frequently, otherwise it is liable to be infested with Scale insects, Mealy bug, and, if the temperature should be kept too high, Red Spider, especially if the atmosphere be dry.

Rivina humilis, potted in light soil, will do well during the winter months in the living room, and either in a sunny window or a north one. It will hold its berries and remain in health quite as well if not given the direct sun light. Frequent sponging of the leaves and occasionally spraying them should not be neglected.

CHRYSANTHEMUMS.

As a subscriber to your valuable MAGAZINE, I would like to ask one or two questions. I have a fine lot of Chrysanthemums, pot plants; can I plant them out with safety this fall, or must they be kept under cover till spring? How can they be kept free from the black aphid, if in the house during winter?

How can *Agapanthus umbellatus* be made to bloom? I have one which bloomed in a tub before I got it, but now refuses to show any signs of blooming, although getting precisely the same treatment as before.—N. B., *Burlington, N. J.*

The Chrysanthemums can be wintered well in a cold-frame, if well protected; if this convenience is not at command, they can be kept in a light, airy cellar. At any rate, keep them in a cool temperature.

The *Agapanthus* should be set away for the winter season in a dry, light cellar, and be allowed a partial rest, giving only water enough to prevent drying. In March bring it out and give heat and light, and water as it demands.

EUONYMUS JAPONICUS.

I here enclose a couple of leaves, each, of two plants I should like very much to know names of. They were given me by a friend who called them Japonica, but said there was another name for them. Can you name them from the leaf? I only have a small cutting of each or I would send a branch. They are pot plants and grow something of a tree form, rather hard wooded. I am not certain what kind of bloom, but I think the green leaved one has white or creamv bloom, and the white edged leaf, I think, yellow bloom. They have a very pretty, rich, glossy leaf and are said to be lovely in bloom. A plant does not do me near so much good without the name. If you can name it give it in next MAGAZINE.

I am so glad the MAGAZINE still continues, and under the old, dear name; but how many hearts are sad at the thought of the founder of it being called from among us, and yet how consoling the thought that he now dwells in a land where flowers never fade. I want, if possible, to get up a club for the MAGAZINE before the beginning of the year. I can not do without it.—MRS. C. O. M., *Massillon, O.*

The plant here described is *Euonymus Japonicus*. It is in the hands of very many people in this country who only



EUONYMUS JAPONICUS.

know it as Japonica. The leaves are thick, dark green, and shining, and the plant erect and handsome. There are two varieties of it, one with the leaves edged with white, and the other with yellow. At the South this plant is hardy, and, being evergreen, is used for ornamental low hedges, serving excellent in that capacity. It is usually hardy as far north as Philadelphia, and in mild winters has held its foliage even in Connecticut. Mrs. C. O. M. will do well to experiment with it in the open ground in winter, planting it next spring where it can have some shelter from the west and some shade from other shrubs.

CAPE JESSAMINE.

What kind of soil for Cape Jessamine in pots? What time in the year to be potted to make them bloom profusely? What is the cause of their dropping the buds, and oblige a subscriber.—S. D., *Ironton, Ohio.*

Cape Jessamine should have a good light soil of two parts leaf mold and one of loam. If potted now and grown through the winter in a temperature 60° to 65°, it will come into bloom the latter part of spring and early summer when the temperature is higher. Unsuitable soil, too much water, or too low a temperature may be the cause of the falling buds.

AQUARIUM CEMENT.

Will you please give a formula for the best Aquarium cement to use. I have a fine Aquarium, but it will leak, and I have tried different kinds of cement. How would it do to use Plaster Paris and then use paint to cover? Any information you can give me will be gratefully received.—SUBSCRIBER, *Bedford, O.*

An excellent cement is thus prepared: Take equal parts of Red Lead, White Lead and Litharge, dry, mix thoroughly, pulverizing all lumps. Then make into a putty by adding boiled Linseed Oil; add a little at a time, and only a drop or two when nearly done, or you will get it too soft. As soon as the glass has been set fill the aquarium with water.

THE MULBERRY FOR SILKWORMS.

We intend to move, next spring, into the country, where I design to cultivate flowers, and to raise silkworms. I would, therefore, like to know if I can make some preparations this winter. Though I have but little room I would like to set out twelve Mulberry bushes. Can they be grown from seed? Can I procure the proper soil from a gardener here? I would like to get some more instructions about it and about the soil suitable for the plants, the replanting and the care of them.—P. S., *Philadelphia, Pa.*

Parties at the West are recommending the Russian Mulberry for Silkworms, but we have no positive knowledge of its value. The White Mulberry, *Morus alba*, is the species that has attained the greatest reputation for this purpose. It can be raised from seeds, and when finally transplanted is suited with most good soils. When only a small number of plants is wanted, it is better to purchase them than to attempt to raise them from seeds, or even from cuttings, by which method they are also easily propagated. Cuttings can be planted in the open ground early in spring. The Women's Silk Culture Association, having an office at 1328 Chestnut St., Philadelphia, can give full information.

FLOWERS AT THE SOUTH.

In continuation here of the publication commenced in October of reports received from the South in regard to the plants cultivated for ornament in the open ground, we have only to say that we think they will prove of great service to beginners in gardening, who, in that part of the country, may wish to make selections intelligently. They will, also, undoubtedly indicate to those who have long cultivated plants some kinds yet untried that will prove of essential value.

The reports from Georgia and South Carolina are very similar and are here combined in the following lists, made for the different seasons.

ALL SEASONS.

Abutilon, if protected in winter; Chinese Pinks; Delphinium; Mignonette, if watered or shaded in the hottest weather; Phlox Drummondii; Scabiosa; Roses, except in December and January; Violets, except in July and August; Ivy does well; Lucerne and Comfrey are green all the year; Bermuda Grass stands the summer heat.

SPRING.

Almond; Euonymus; Iris; Lilac; Larkspur; Magnolia; Pyrus Japonica; Snowball; Spiræa; Syringa; Wallflower; Wistaria.

SPRING AND SUMMER.

Althæa; Crape Myrtle, or Lagerstræmia Indica; Carnations; Gladiolus; Honeysuckles and Pinks, from April to July; Antirrhinum; Cypress Vine; Evening Glory, or Ipomœa Bona Nox; Morning Glory and Verbena, from April to frost; Balsam, from May to August; Canna; Cape Jessamine, or Gardenia florida; several species of Jasminum; Lilies; Oleander; Portulaca; Salvia; Tuberose.

SUMMER.

Ardisia, holding its berries all winter if protected; Chinese Yam; Convolvulus; Four O'Clock; Madeira Vine; Marigold; Nasturtium; Phacelia; Petunia; Poppy; Portulaca; Zinnia,

FALL.

Chrysanthemum, from September forward.

WINTER.

Crocus; Hyacinth; Tulip; Scotch Broom; Olea fragrans, if protected in the

coldest weather; Pansy, from Christmas until last of May; Phlox, from February onward; Euonymus is evergreen, holding its red berries all winter; Blue Grass is fresh and green all winter if it is not too dry.

Reports from Alabama show no particular deviations from the above lists. Mississippi, also, reports substantially as above, and adds *Dicentra spectabilis* blooming in March, *Pæonies* in April, *Carnations* and *Sweet Williams* from April to November, *Cleome* from April to frost, *Clematis Jackmanii* in May, *Amaryllis Johnsonii* perfectly hardy, blooming in May, *Dahlias* from May to October, *Gladiolus* from June to August, *Datura* from June until frost, *Hydrangea Hortensis* in June and July, *Hydrangea paniculata grandiflora* July, *Tritoma* from July to October, and *Akebia quinata* is evergreen.

The following kinds of plants are reported as not thriving well in Mississippi, *Campanula*, *Candytuft*, *Perennial Larkspur*, *Lobelia*, *Lupinus*, *Nemophila*, *Stock*, or *Mathiola incana*; *Phlox Drummondii* does well from February to May, but soon after that time dries up.

Reports from Louisiana include all the above with the following additions. *Japan Plum*, or *Mespilus*, is an evergreen, flowers are very sweet, and fruit ripens about first of April; *Pomegranates*, several varieties; *Buddleia* blooms from April to November; *Forsythia* blooms in February and March; *Brugmansia suaveolens* is a fine plant for a sunny place, blooms from July to November, grows five to six feet high, but dies down in winter; *Cestrum Parqui*, *C. lancifolium* and *C. aurantiacum* begin to bloom in April and continue until frost. A *Passion Vine*, with large dark blue and white flowers, is a fine evergreen, and blooms from May to October; *Hedychium*, or *Butterfly Lily*, blooms from middle of July to December, and is perfectly hardy, but loves shade and moisture; *Clematis crispa* is a native vine that blooms from March to November, and holds its leaves all winter. Many varieties of *Amaryllis* bloom profusely in March and April, and some of them at intervals during the summer and fall. They do well in sun or shade, and with some varieties the time of blooming can be regulated by the amount of sunshine and

water they are allowed. *Lantanas* bloom well from May to frost. *Caladium esculentum* is perfectly hardy. Tuberoses begin to bloom in July, and are hardy. Tea Roses require a partially shaded situation, but they bloom two-thirds of the year. Few annuals are planted, because after the middle of June they die. This is not occasioned by the intensity, but the long continuance of the heat. *Salvia splendens* and *S. Hoveyi* do well in the shade. Geraniums do not flourish except in a partially shaded place.

The reports from Texas include nearly all that have been noticed above, and mention *Acacia Farnesiana* and *Pancratium rotatum* as blooming in spring. Geraniums, Nasturtiums, Petunias, Phlox Drummondii, Portulacas, Verbenas and Zinnias are mentioned as blooming from May all through the summer, and as being the main dependence for flowers. Pansy is in bloom about eight months, and Tea Roses all the year except August. *Pilogyne suavis*, a native, blooms in May. *Adlumia* grows wild. Balsams are reported as doing finely, blooming in June. "Petunias and Phloxes are masses of brilliant beauty from May until frost." The following climbers grow well: *Momordica Balsamina*, *Convolvulus major*, *Ipomœa Bona Nox*, *Cardiospermum Halicacabum*, *Lonicera* of different kinds and *Maurandya*.

The following shrubs, not elsewhere mentioned, are reported as valuable in Texas: *Berberis trifoliata*, Virginia Creeper, *Prunus Caroliniana*, *Chionanthus Virginica*, *Cornus Florida*, *Deutzia crenata*, *Weigelia rosea*, *Ilex decidua*, *Lonicera Tartarica* and *L. Periclymenum*, the common and the California Privet. Evergreens, the following: Golden Arbor Vitæ, Chinese Arbor Vitæ, Irish Juniper, Red Cedar, and most species of the *Retinispora*. Northern species of *Pinus* and *Spruces* cannot endure the summer. Of herbaceous plants, *Astragalus*, *Baptisia* and *Oenothera* are added to former lists.

In these lists it will be observed that the annuals that thrive best are *Antirrhinum*, Balsam, Cypress Vine, Four O'Clock, *Ipomœa Bona Nox*, Morning Glory, *Nasturtium*, Petunia, Phlox Drummondii, Poppy, Portulaca and Zinnia.

Those of our readers who kindly favored us with the reports, the substance of which is here given, will please accept

our thanks for the service done, and they with others it is hoped may reap some benefit from these aggregated lists.

NATIVE FERNS.

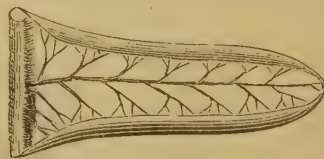
The common Brake is familiar to every observer of nature; there is no part of the country where it does not grow, and it can, therefore, be easily found for examination and study. It grows in fence corners, wood lots, and pastures and along the roadsides. Though somewhat



PTERIS AQUILINA.

stiff in outline, it is, as seen at a little distance, rather graceful in appearance, and the numerous divisions of its fronds do not fail to attract our attention and excite admiration.

The botanical name of this Fern is *Pteris Aquilina*, and *Pteris* is the general



LOBE OF PTERIS AQUILINA, ENLARGED, SHOWING THE DOUBLE-BRANCHED VENATION AND THE REFLEXED MARGIN.

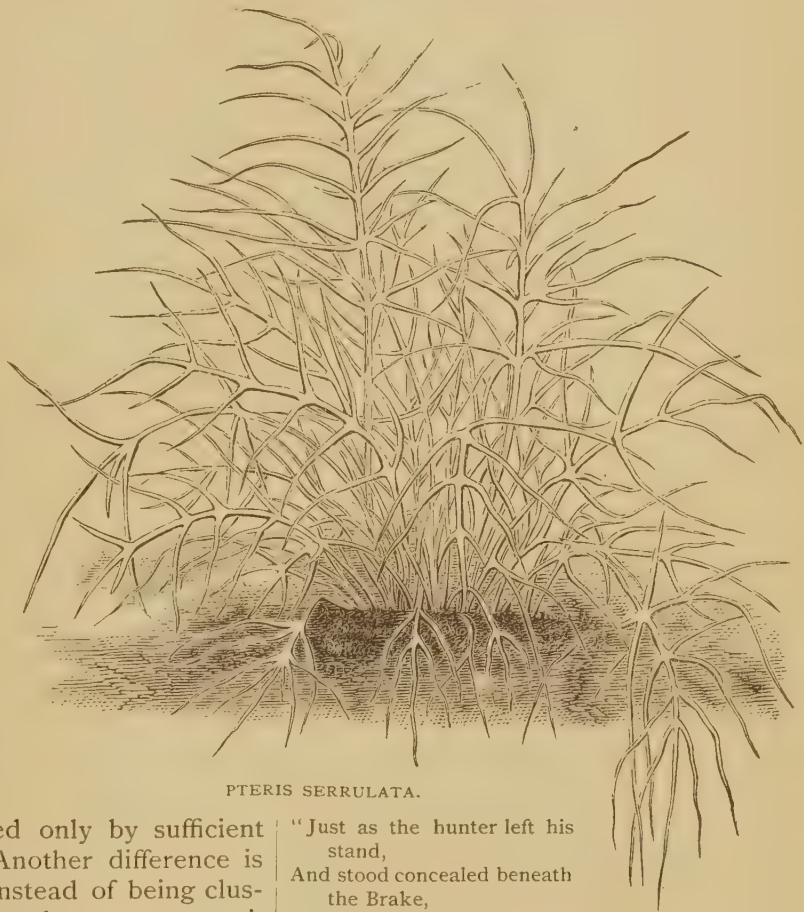
name that the Greeks employed for all kinds of Ferns. The word itself they derived from *pteron*, a wing, on account of the resemblance of Ferns to feathers, or the wings of birds. The specific name, *Aquilina*, means resembling an eagle, and

has reference to the appearance that may be noticed on a cross section of a stipe, being end views of the fibro-vascular bundles. LINNÆUS gave this name, as he fancied there was a resemblance to an eagle. By cutting across a stipe of a Brake with a sharp knife the appearance here referred to may be seen.

In some important particulars the *Pteris* differs from the *Polypodium*. In the latter we noticed the stipes to be articulate with the rhizomes, and when they decay they parted from it, leaving a scar or little rounded knob, or, in other words, the attachment is similar to that of the petiole of a leaf to its stem, which when mature falls away leaving a little scar on the stem, showing where it had been. The stipe of the *Pteris*, however, grows out from the rhizome without any marked separation, is said to be continuous with it, and when the frond withers the base of the stipe remains attached to the rhizome, and can be removed only by sufficient force to break it. Another difference is that the sporangia, instead of being clustered together in circular spots, or sori, are arranged closely upon a marginal vein along the edges of the divisions of the pinnules, forming a continuous line or border. And, lastly, whereas the sporangia of the *Polypodium* are naked, or uncovered, those of the *Pteris* have a covering of the margin of the division reflexed, so as to completely cover the sporangia in the young state. An illustration of a division of a pinnule, magnified, shows the forked venation, and the reflexed margin.

The general form of the frond of the Brake is triangular, and it is pinnately divided. The divisions, or pinnae, are sub-

divided into pinnules, and the pinnules are divided into oblong, obtuse lobes. The fronds arise from the rhizomes singly and at points variously distant from each other. As usually seen, this Fern grows about two feet high, but in very favorable locations mounts up wonderfully, so that a man can walk under it. Sir WALTER SCOTT, in "The Lady of the Lake," alludes to this Fern when he describes the accidental meeting of the hunter, Fitz-James, and Ellen:



PTERIS SERRULATA.

"Just as the hunter left his
stand,
And stood concealed beneath
the Brake,
To view this Lady of the
Lake,
The maiden paused."

So, again, it is noticed in the song of Roderich Dhu, as he takes his way "o'er bank and brae," after leaving Ellen the "plighted bride," to answer the "summons dread" of "Clan-Alpine's cause:"

"The heath this night must be my bed,
The bracken curtain for my head,
My lullaby the warrior's tread,
Far, far from love and thee, Mary,"

Allusion to the dark green color of the Brake is made in this description of Clan-Alpine's warriors' resting place:

" Various scenes the clansmen made,
Some sate, some stood, some slowly strayed ;
But most, with mantles folded round,
Were couched to rest upon the ground,
Scarce to be known by curious eye,
From the deep heather where they lie,
So well was matched the tartan screen
With heath-bell dark and brackens green."

Great use is made of this Fern in England and Scotland in game preserves, where it is planted closely over large areas as a cover for game, and mention is often made of its concealing persons, such is its height.

At the South a form of this *Pteris* grows which has the ultimate divisions of the fronds very long and pointed; this variety is called *caudata*, that is, caudate, or with a tail. Mr. DAVENPORT, some time since, gave an account in the *Botanical Gazette* of a specimen of this variety received from Mr. F. A. WHITE, of Brevard County, Florida, which measured thirteen feet and four inches from the base of the stipe to the apex of the frond. But Mr. WHITE afterwards took the pains to measure a living specimen as it stood, and found it to be fourteen and a half feet in total length, and the spread or width of the frond was ten feet. Mention is made of it growing in the Andes fourteen feet high. EATON says, in Oregon "the bracken forms thickets six or seven feet high." This Fern is more widely and generally distributed throughout the world than any other, and in different localities is variously modified in form. Before New Zealand was occupied by Europeans the root of a variety of this Fern was one of the principal articles of diet of the natives. There is a considerable quantity of tannin in the common Brake, and it has been used in dressing kid and chamois leather. In Scotland it was formerly the custom in some parts to mow it green, and then burn it, and make up the ashes with water into little balls and dry them in the sun, and then use them to wash the linen with instead of soap. Swine are said to be fond of the boiled roots, and in Somersetshire, England, it was once the custom to gather the young shoots and let them simmer for a couple of hours in water; this liquor when cold became a strong jelly, and was an excellent food for pigs.

A delicate and beautiful species of *Pteris*, *P. serrulata*, is found in Alabama and South Carolina. The same species

is also a native of China, Japan and South Africa. Although agreeing in all essential particulars in its fruiting parts with the common Brake, it is very different in appearance. It grows only about a foot in height, the stalks grow thickly clustered from a few inches to a foot in length. The fronds consist of a winged part on each side of the rachis, seldom exceeding a quarter of an inch in breadth, and from this extend on each side linear pinnæ of about the same width. The lower pinnæ have pinnate segments, while the upper ones are simple and linear, or occasionally lobed. The margins of the sterile fronds have small, sharp teeth, hence the name, serrulate, a diminutive of saw-toothed. This species forms one of the handsomest ornaments of our greenhouses, conservatories and window gardens. It is an excellent basket, vase and pot plant. The fronds take a decumbent habit, which, with their light structure, give the plant a very graceful appearance, especially as they grow in profusion and hang over the edge of the pot or vase. The plant is of easy culture, requiring a light, well drained soil, and a moderate supply of water, with a good exposure to the light.

FLOWERS FOR THE SCHOOLS.

At the present time, November 8th, but few reports have yet been received from the schools to which flower seeds were sent last spring for the school yard grounds. We have reason to think from the accounts that have reached us that nearly everywhere where the attempt has been made to cultivate flowers, there have been satisfactory results which have proved to be a source of pleasure and benefit to pupils, teachers and the community. The good effects of this movement are so perceptible that we have no hesitation in suggesting to all county agricultural, and local horticultural societies, to offer appropriate premiums for the best collections of flowers offered by schools, and also for the best arranged and best kept school grounds. There is but little doubt that it would meet with hearty response by the schools, and would interest a large portion of the people. We believe that many a languishing county agricultural society could use such premiums effectively as a means of permanent invigoration, and

that it would lead to other beneficial measures.

Next month some extracts will be given from the reports received from the teachers in regard to the cultivation on the school grounds the past summer.

As the offer last spring to supply seeds to the schools was made so late that the schools at the South and at the far West had little or no time to learn of it and to order them, we now take time by the forelock, and repeat the offer, substantially the same as then made, so that all parts of the country may have an opportunity to engage in this good work the coming season.

Our offer is a collection of twelve varieties of seeds of the most desirable, showy and free-blooming annuals to each of the five schools of each County in every State in the country that shall first apply for them. The only conditions on which these seeds are offered are, that they shall be cultivated on the school grounds, and that by the first of next November a report shall be made to us by letter of the result of the summer's work in the school grounds.

Applications for the seeds may be made to us by teachers, trustees, directors, or any school officers, stating themselves to be such, and giving the names or numbers by which their schools are known, and engaging to execute the design of our offer.

Those who wish more than the collection of twelve varieties of seeds, or those who should apply too late to be entitled to the offer can avail themselves of a privilege we have granted schools for several years, which is this: we will supply schools with seeds to the amount of five dollars, or any less amount, on the receipt of one-half of the price of the quantity ordered.

In order to render every facility in cultivation, and add to the interest, we will supply any school with the *MAGAZINE* for one dollar, for the coming year. Or, any school that will make a little effort and procure four subscribers to the *MAGAZINE* at our regular rates shall have a fifth copy free. Why cannot the school grounds all over our happy, prosperous land bloom in beauty next summer, and be transformed from their present unsightliness? We shall all feel happier and better if we engage in this good work.

REVIEW NOTES.

The first paragraph in the October *MAGAZINE* amuses some of us down in Massachusetts, here, while we are having as luxurious a crop of green grass as any June ever saw. We had over a month of extremely hot weather this summer, which is almost unprecedented in this region. We usually have not more than three consecutive days of intensely hot weather, an east wind generally appearing by that time.

In the suburbs of Boston, even with city water, and a right to use a hose an hour every day, the lawns were yellow with drought, a sight I never saw before. Even one magnificent lawn on a place laid out by COPELAND, the landscape gardener, about a quarter of a century ago, showed signs of dryness, and lost, in places, its green, velvety appearance. But the month of intense heat and the perfectly dry summer were succeeded by about a month or more of rainy days, and now there is an entirely new crop of grass nearly a foot in height where it has not been cut, and one would suppose two blades of grass had sprung up where there was but one before.

It seems probable that many of the children of farmers are driven from home to the cities for want of more attention to beauty on the farm. Every farm should be beautiful. Take one hundred square feet of front yard in a city, and you will often see more of rural beauty there than many a farmer has on his whole farm—woods excepted. I believe trees as well as fertilizers help to keep a lawn green. But there is another use for trees which it seems strange the farmer cannot see. Persons riding and journeying all day in summer know how dreary and exhausting it is for beast and humanity to ride in the sun. Why the farmers, when cutting down their wood-lots, do not leave one, two or three rows of trees nearest the highway, was always a mystery to me. When they can be made to see, as the suburban does, that shade is money, and sells their land for house-lots at a large profit, they will not chop down everything that comes in their way. But without a state law to this effect, it is doubtful if any of us ever live to see country roads well shaded.

In the September number, do not the beautiful stanzas on the "Unfruitful Tree,"

page 269, refer to the origin of the Duchesse D'Angouleme Pear? On page 276, it is this same Pear, I suppose, which is so highly recommended.

A long time ago, information was desired as to the best method of cleaning the outside of flower pots. As I have not seen it answered, let me say Morgan's Sapolio is the best thing I have found for this purpose. It is rather expensive to use on a large scale, and sand would do as a substitute. Plunging pots keeps them clean from everything but soil, and preserves them.—ESDIE, *Newton, Mass.*

A STREET DECORATION.

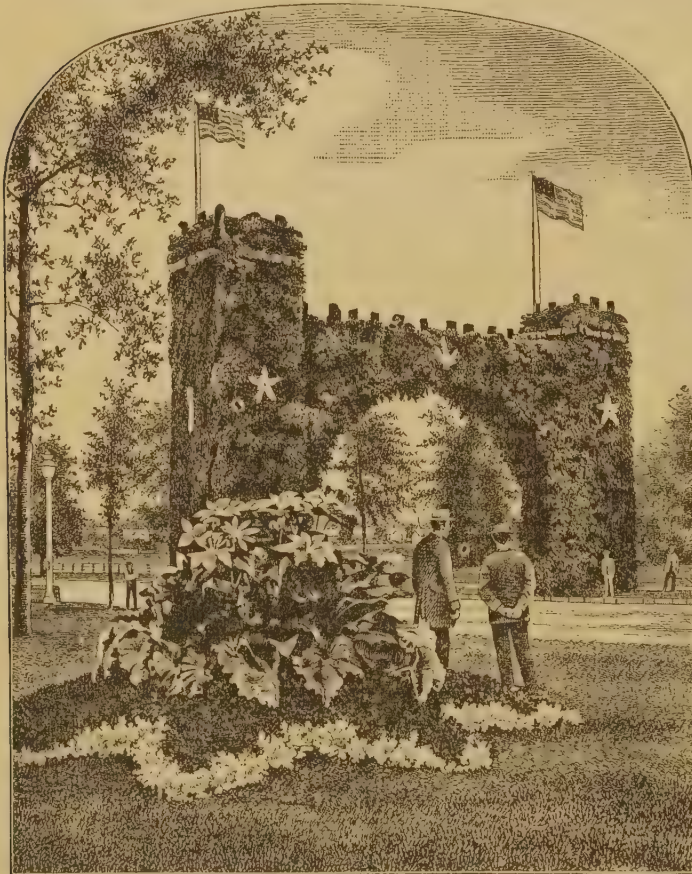
At the time of the National Firemen's Industrial Exhibition, held in this city, August 15th to 18th, our streets and buildings presented gay sights. Flags were flying from flag-staffs in all direc-

signs were displayed, as may well be imagined, for we all delighted to honor the firemen. As these designs were the result of individual promptings, and the free expressions of individual esteem, and without any general supervision, they were of great variety, and produced from materials of almost every description.

In front of our grounds and seed house, on East Avenue, our establishment erected a grand arch, spanning the midway between two towers. The framework of the whole was of wood, and it was completely covered with evergreen boughs, giving it a very massive and elegant appearance. The whole breadth of the structure was sixty-six feet, and the towers were eight feet square and forty feet high. Under this magnificent arch passed and re-passed the grand procession of firemen in uniform, with bands of music at intervals throughout its whole extent, and engines and ladders and hose and bucket carts and wagons, and elegant equipages with ladies and gentlemen, the whole forming a line nearly two miles in length.

Our purpose, however, is not to give an extended description of the animated scene at that time, but to convey an idea of the arch, of which engravings are here presented, prepared from photographs. It is offered as a specimen of appropriate street decoration.

The illustrations present views from opposite sides of the arch, one looking upon our grounds, and the other up the street, East Avenue, one of the finest in our city. In undertaking street decorations upon a large scale it is necessary they should be well planned to produce the best effect, regard being



tions and from all the windows, of both business places and private residences, mottoes of welcome and cheer greeted the sight of the great company of brave men, who as firemen, from all parts of the country, gathered here at that time. Many unique and tasteful decorative de-

had to the proportions of the parts, and for strength, for the force of the wind upon them must not be underestimated. In the present instance, although the structure was solidly built, guy ropes were employed as a precautionary measure.

SOME NOTES.

To Mrs LIZZIE H., Palestine, page 216.—*Achania Malvaviscus* is an excellent garden plant both north and south, and like *Vinca rosea*, *Asclepias curassavica*, another of your Texas plants, and *Lantanas*, seems to enjoy our warm, dry summer weather. I found lots of it on the Trinity between Palestine and Jewett. There are several Scarlet *Pentstemons* indigenous to your part of Texas; which one do you refer to? At Boston I find your *Pentstemons* are not hardy, but winter fairly well in a cold frame. At Passaic, N. J., I saw some *Pentstemons* coming up all about where the old plants had seeded, but they never do that here. The large purple-flowered *Pentstemon Cobæa*, and which I found plentifully near Dallas, in your State, is an excellent and showy garden plant. By treating my southern and western *Pentstemons* as biennials, and wintering them in cold frames, I have good success with them, but as perennials, they are unsatisfactory. Of course, *Pentstemon barbatus*, *P. Digitalis* and *P. ovatus* are hardy enough, and live year after year. The *Ipomopsis* is an annual or biennial, stands heat and sunshine unflinchingly, and is very showy. What beautiful wild patches of it I have seen on the clay lands between Palestine and Tennessee colony. By raising plants from seeds sown in the fall, or in the North, in a hot bed, in spring you can have a mass of red flowers that will outlive all your *Gilias*, *Phacelias*, *Nemophilas*, and its three near relatives, and blossom in company with *Mist flowers* and *Ageratum*, *Cochranea* and *Gaillardia*, with *Day Lilies* and *Japanese Lilies*.

Datura Wrightii (referred to, page 217,) or more properly, *D. meteloides*, is a true perennial, and, under favorable circumstances, sometimes hardy in the northern states, but like *Plumbago Larpentæ*, *Stokesia cyanea*, and several other garden

plants, it is not reliably hardy nor nearly so. But you can lift the roots and store them in the cellar in the winter, as you would Carrots or Parsnips, and plant them out in spring, when they should make a fine show during the summer and early autumn months. But if its seeds ripen and fall upon the ground, they are likely to come up the next year as thickly as a mass of weeds; then you can thin them and leave a few to blossom, or you may transplant them into another part of the garden. They will blossom the first year from seed, and are, therefore, often treated as annuals.

In answer to Mrs. FRANK C., (page 214,) and also in correction of Mrs. MCCURDY, (page 248,) I may say the



plant they refer to is *Chlorophytum Sternbergianum*. Other than in name, Mrs. MCCURDY is right in her description of it. S. C., no doubt, got the right thing in the plant with the Lily-like foliage and half-tuberous-like roots.

Apropos of what C. P. T., (page 233,) says of *Cypripediums*, I would say that I grow them all as garden plants; also

candidum and arietinum, and I find they enjoy their artificial quarters first rate, and bloom splendidly every year. Providing the soil is damp, sunshine does not seem to hurt the plants, but it does injure the flowers. I grow them in a damp, partially shaded nook, in moist, peaty soil, mulch them with moss in the summer time, and top-dress them with a little leaf-soil, peat and old cow-manure in the fall, and allow some wild Anemones, Starflowers, False Solomon's Seal, Omphalodes verna, Lycopodiums and the like, to grow among them.

The Georgia folks can give any name they please to a plant, but when they call *Ardisia crenulata* the Coral Plant, (see page 236,) then we shall hesitate to accept their nomenclature. Priority takes precedence. No; the Coral Plant, as generally accepted, is *Erythrina herba-cea*, a plant that grows wild along the Texas coast of the Gulf of Mexico. In the fall, when its leaves and stems begin to decay, and have been battered to the ground by wind and trampled under foot by cattle, the seed pods burst open and display the bright red coral beans.

Mrs. J. T., (page 241,) may be right in attributing the loss of her *Dicentras* to worms. Here, we do not expect a *Dicentra spectabilis* to live more than three or four years, because of the fondness of wire worms for their roots; indeed, I find wire worms are passionately partial to the roots of this species. In the fall months you can catch a great number of these depredators by laying thick slices of Squashes, cut-side down, on the ground, and covering over with a handful of green grass, half-rotted leaves or other material, to keep the ground moist. Examine the traps every day or two, gather the worms into a vessel and destroy them. Old, long-cultivated garden ground is more infested with these worms than is new or farm land. I propagate my *Dicentras* from cuttings, secured when the plants go out of bloom; they will root easily in moist, sandy earth, and a shady place.

Surely, Mrs. M. D. W., (page 297,) does not mean that the *Prosoqueria* is hardy in the state of Maine! Rather a different winter temperature at Yarmouth from that of Guiana, I should guess. At Boston, we regard *Abelia rupestris* as a half-hardy shrub, and winter it in a cold pit;

although hardy at Washington, it is not hardy here.

E. C., (page 298,) says "Plumbago looks beautifully in Florida to those who like it." And don't you, E. C.? Why, I never remember being more struck with the beauty of a blue-flowering bush than I was some years ago with a specimen of *Plumbago capensis* in full blossom in a garden in Southern Florida. It was as big as a Japan Quince bush, and completely covered in a sheet of pale blue flowers.—W. FALCONER.

WHITE BLOOMING OXALIS.

Last fall I purchased some of the winter flowering kinds of *Oxalis* bulbs. I am satisfied that the *Oxalis* is one of the best kinds of flowers for winter bloom, for the plants are in bloom constantly. They make the long winter day seem less dreary and the heart to rejoice and be glad. *Oxalis lutea*, which has bright yellow flowers, bloomed very freely, and one day I counted the blossoms and there were thirty-five in full display. When I took the bulb up in the spring to repot it, I found to my surprise forty-one nice sized bulbs in the pot. This fall three bulbs have already sprouted, and *O. Bowiei* and *O. versicolor* have both thrown up bunches of blossoms.—A. W. S., *Dayton, O.*

BEET-SUGAR.

The Beet-sugar industry in this country is not increasing, apparently, at present. There are good reasons, however, for supposing that ultimately it may attain more importance. For some cause it fails to attract the capital that is necessary to carry the enterprise to a successful issue. If its supporters can show good cause, it would seem that now, when capital is seeking investment at low rates, is a favorable time to place the business on a sure footing in some part of the country.

GOLD-BANDED LILY.—About nine years ago I procured a bulb of *Lilium auratum* from your house, and I planted it. It has blossomed every year since, and last August it had fifty-two blossoms on six large stems. A number of small bulbs are produced every year, and I have already parted with five of them.—M.

GARDEN NOTES.

A year-old plant of *Hoya*, of mine, has grown, this summer, nine feet, since about the middle of March last, besides throwing out some branches. It grew very rapidly in April, and then I transferred it from a small pot to a gallon keg, which gave it more root room, but checked the upward growth awhile. It has been out of doors since May last, and to-day I have taken it in, so while I had it in hand I measured it. Is not nine feet a good growth? But as the plant grows older, I think it will equal one that I wrote you about previously.

During last week and this I have been preparing about fifty plants for my windows. I use tin fruit cans mostly. They are not a bit pretty, but they hold more than a pot of the same diameter. I told you last year that I considered the open ground unfit for *Begonia Weltoniensis*, but this year I tried it and the plants nearly killed themselves, blooming, but the leaves lost their beauty.

I had no good place in the garden for Carnations this summer, so I put them in wooden boxes, about four in a box eight by ten inches, and six inches deep, but they did not bloom as well as I hoped; yet I do not think the situation was so bad as the soil. The mixture was too rich, I fancy, not quite heavy enough. I shall leave them in the boxes this winter, but replace some of the soil with fresh and better.

My Tea Roses I have massed in boxes, too, for want of a better way. They have done finely, and I shall keep them undisturbed in the window this winter. Every flower that I cut I cut low, so as to help further growth, and when a branch looks dull and does not grow, off it comes.

Every month when we receive the *MAGAZINE*, we exclaim over the beautiful colored plates, and wonder from that time till another comes what the next will be. The plate in the October number is especially lovely. If I could only have *Heliotrope* like that! Do they grow so large and fine?

My experience with tender plants, *Begonia*, *Fuchsia*, *Geraniums* and some others, shows they are more inclined to seed than usual. I have a *Begonia* that I would like a name for. It grows three or four feet high under fair treatment, though oftener seen fifteen or twenty

inches, and leaves an abundance of large blossoms of a very light pink and white color, on very long, pendent stems. The foliage is large, sometimes leaves are eight inches long, dark green, and on the face a good many bristles. The under side of leaf is light green, with blood red veins; stems red at the joints. After blooming the plant stops growing and forms little bulbs or buds where flowers should be, and after awhile they drop, and if covered in the earth will produce new plants in the spring. The top wholly dies down, and the pot should be put in the cellar till spring, when the root starts again and grows large with age. It is not an uncommon sort, but I never could determine its name in the catalogues. I consider it one of the finest summer plants, in doors or out.—R. A. H., *Smithville, Ill.*

VARIOUS INQUIRIES.

FRANK FOWLER wishes to know if *Lilium Brownii* will succeed as a pot plant. It will, and it may have the same treatment as advised for *L. auratum* on page 307 of this volume.

S. B. H., of Ellsworth, Kansas, writes: "Enclosed please find sample of some kind of insect that infests our plants. Can you tell what it is, and how to get rid of them?" The sample sent is *Scale* insect, and may be cleared of them by taking a little brush or feather and dipping it in kerosene oil, or alcohol, and touching the insect. Go over the whole plant in this way, and then with some soap and water use a stiff brush, and scrub the stem and branches until entirely freed of them. If some of them should adhere closely, use the thumb nail and force them off.

C. D. K., Pearlinton, Miss., inquires for a remedy for Mealy Bug. This insect propagates rapidly in a high temperature and dry atmosphere. To prevent it rid the plants of them all, and then attend to the humidity of the air, and frequently syringe the plants. To clean plants infested with it, take the same course as advised above for *Scale* insect.

INQUIRIES NOT ANSWERED.—Quite a number of inquiries too late for insertion in this issue will receive attention in the next. Correspondence or inquiries received after the 10th of the month can seldom appear until the second month.

GOLDEN-VEINED HONEYSUCKLE.

Your readers in southern California were rather amused at the description of the Golden-veined Honeysuckle in the August MAGAZINE, where it is spoken of as making "a pretty bush or clump not more than a foot and a half high."

I wish you could see our Honeysuckle that effectually screens a window with its pendent sprays, and runs rollicking over the roof of our veranda. It blooms quite freely during the summer, though we do not give much attention to the flowers, as there are a great many Honeysuckles about the house, some of them having blossoms similar to the Golden-veined variety. But the beautiful sprays of delicately shaded leaves are its crowning glory. Each differs from its fellows. One may find all the manifold hues from the dark green, faintly netted with gold, the brighter emerald, with more distinct veinings, the golden yellow, shaded and sprinkled with green, to the pale straw color, tinged with the merest hint of verdure. We cut the beauties with a lavish hand, and use them constantly for bouquets, festooning pictures, and various decorations.

Our plant is about five years old, and was grown from a tiny sprig in a bouquet. All the Honeysuckles are "evergreen" in this climate, though they do not make as rapid growth in winter as at other seasons.—A. P. A., *San Gabriel, Cal.*

OUR HOLIDAY NUMBER.

We believe our readers will appreciate our endeavors to please in making an extra large number for the last one of the volume, filled, as we think, with interesting and instructive matter. Our arrangements for the coming year, in the conduct of this MAGAZINE, are in some respects superior to what they have been, and we expect still further to improve them.

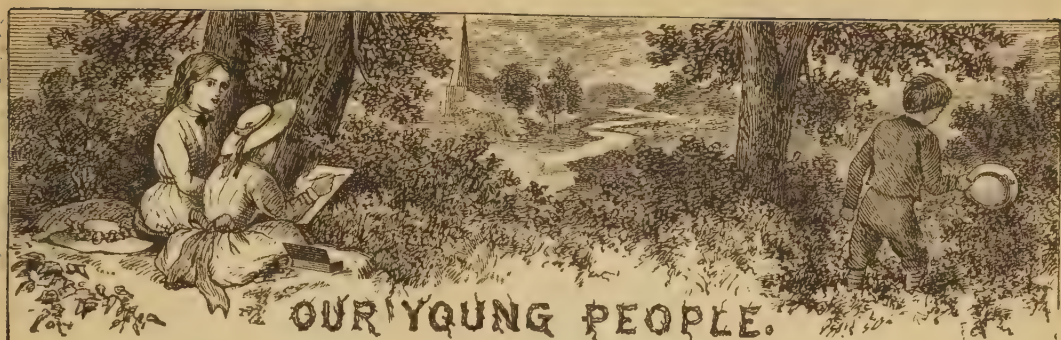
The editorial management will be continued as at present. Many persons of horticultural skill, and experience, and literary ability will contribute to our pages. Such material in connection with the colored plates, which for the coming volume, we believe, will be superior to any previous ones, and, also, with the numerous engravings employed in illustration, will enable us to supply our

readers with the best and handsomest garden journal in this country, conveying the latest and soundest information upon the subjects upon which it treats.

Most of our subscriptions close with the year, but we expect every subscriber to this volume to promptly renew for the next one, and we hope each one will use his personal influence to induce others to subscribe, thus, by an increased revenue enabling us to carry out all our present plans for the MAGAZINE, and to do for it still more.

AUSTRALIAN FOREST TREES.

The *Gazette*, of Toowoomba, Australia, notices an account of Australian forests, as given by Mons. GUILLEMAUD, who says that "the marvellous dimensions of Australian forest trees are not generally known, and there are few, even traveled people, who would not at once name *Sequoia gigantea*, of California, as furnishing both in height and girth the grandest specimens of timber in the known world. After describing the appearance and giving the dimensions of some of the most famous giants of the American forests, and mentioning the big trees of Siam, Cambodia, equatorial Africa, and Brazil, the writer goes on to say that Mr. FERGUSON, Inspector of State Forests, found along the valley of the Watts River many specimens of the *Eucalyptus obliqua*, *E. amygdalina* and *E. gonicalyx* of dimensions never previously heard of in Australia. The highest of all was a fallen monster, which formed a complete bridge across a deep ravine. The top was broken off, but the barrel as it lay measured 435 feet to the break, as the trunk was nine feet in circumference at the fracture, the tree when standing must have stood over 500 feet from the ground. At or near Fernshaw a specimen of *E. amygdalina* is now standing and growing which measures 380 feet to the first branch, and 430 to the top, girthing sixty feet at some twenty feet above the ground. As the writer aptly put it, 'this tree, if growing by the side of the Houses of Parliament at Westminster, would over top the clock tower by exactly 100 feet.' As compared with the height of the Victorian Alpine timber, the nearest ascertained approach is made by some specimens in Calaveras Grove, which are alleged to rise to a height of 330 feet."



A CHRISTMAS EVE TALK.

As the holidays approached, Mr. and Mrs. Benson had many consultations as to how matters should be arranged so as to result in the greatest pleasure and benefit to all concerned. The long promised visit of the boys to uncle Turner's was to be made during the two or three days preceding Christmas, when cousins Flora and Jim were to return with them. When the time for leave-taking came, Mr. Benson said, "Don't forget, boys, that you are to be prepared, on your return, for another 'tree talk.' Tell Flora and Jim we must hear from them, too."

After they were gone, Mr. Benson said, "Only for Edwin and Jim we'd not bother with getting up a tree; but those youngsters will expect it, I suppose, and so we'll make it serve for all."

The presents intended for the boys were of such a remarkable character for tree decoration that it was finally decided that a large work-shop quite back of the house should be appropriated for this purpose. Everything but the stove could be carried to the hired man's room above, or set back of the building, and thus all the space utilized. There it could be dedicated to its new use by decorating the walls with Ground Pine, etc.

And now it is Christmas Eve at Mr. Benson's. The boys have returned and brought their cousins. Supper is over, and all are gathered in the cheery sitting room. Then Mr. Benson remarks, "I suppose, boys, this is as good a time as any for imparting what new ideas you may have obtained regarding trees. Tomorrow you may want to be otherwise engaged, especially if Amy and Frank Snowden should join you."

"But, father," sheepishly interposes

Edwin, looking at Jim, "what about your side of the contract? The rooms are all open, and I don't see any signs around of any thing different from common. Some things that Jim and I can think of don't grow up, like mushrooms, in a night."

"For shame! Ed," says Reuben; and Hiram, pointing his finger at him, whispers, "Baby," which so mortifies Edwin that he exclaims, "You boys can just shut up! You know very well that I'm only worried on Jim's account." Then, of course, the brothers laugh, and Jim gets confused, while Mr. Benson says, with a hopeful twinkle, "O, well, Edwin, you haven't looked up stairs yet, nor down cellar."

"Nor in the well," adds Hiram.

"There, there; that'll do now," says Mr. Benson. "Edwin has some reason for anxiety after the talk that passed when his cousins were here before. Now, we'll change the subject. Of course, no one can learn, within a short time, but a small proportion of what would be interesting to know concerning trees. But we can make a beginning that will, perhaps, inspire us to continue gathering up such knowledge hereafter. Perhaps you had better begin to-night by telling us what you know of historical trees, those, for instance, that were termed 'Liberty trees.' Reuben, will you commence?"

"Well, sir, it is not known at what period trees were first dedicated to liberty. The ancient Greeks and Romans are known to have had such a custom, and the Swiss, as far back as the middle ages, planted a Linden tree on every victorious battle-field. In this country the native Elm was chosen for Liberty trees, and the most famous ones thus honored were those at Boston, Providence, New-

port and New York. It was before the Revolution, in 1765, that an Elm in the 'town of Boston, in the Province of Massachusetts Bay,' was dedicated to the 'Sons of Liberty,' to display on its trunk the effigies of such men as made themselves odious in connection with the Stamp Act. There was fixed upon it a copper plate, thirty-two by forty-two inches in size, inscribed in gold letters, 'THE TREE OF LIBERTY.' Ten years later it was felled by the British. It had been planted in 1646, and its size was such that it made fourteen cords of wood. In 1768 an Elm in Providence, R. I., was also dedicated to the 'Sons of Liberty.' The records state that a stirring discourse was delivered from the summer-house in the tree, by SILAS DOWNER, a lawyer, after which the people placed their hands on the tree while the speaker pronounced aloud the dedicatory words, beginning with, 'We do, in the name and behalf of all true Sons of Liberty * * * throughout the world, dedicate this Tree of Liberty * * *,' and closing with the words, 'may they be penetrated with a sense of their duty to themselves and to their posterity; and may they, like the house of David, grow stronger, while their enemies, like the house of Saul, shall grow weaker and weaker. AMEN.' I believe, father, these are all the items I have gathered about Liberty trees."

"Very good," responded Mr. Benson, "I'm sure we are all much obliged. Now, Hiram."

"There are many trees," said the latter, "in this country, especially in California, that are noted for their size and age, and others for their connection with historical events. Everybody knows of the Charter Oak, in Hartford, Connecticut, and of the Elm under which Penn's celebrated treaty was made; but it is not so well known that after it was blown down, in 1810, it proved to have been two hundred and eighty-three years old, and that soon after the accident a large portion of the tree was taken to England, to the old family seat of the Penns, and still remains in a state of preservation. There are two instances recorded of Indians having planted a pair of Elms as 'Trees of Friendship' in front of the homes of their mission preachers, in Natick, Massachusetts. The 'great Elm, of

Boston Commons is considered as old as Boston itself. About 1801 it had a hollow in it large enough for a boy to hide in." But by a 'mode of treatment recommended by Forsyth, its decay was arrested, and finally no appearance of the hollow was left.' After having been injured by gales it was protected by iron bands and props to preserve its symmetry. A large Elm in Pittsfield, Massachusetts, has been reported as being three hundred years old, and also, that there are enough incidents connected with its history to fill a volume. American troops were marshaled under it previous to their march to Bunker Hill. And the first Agricultural Fair held in America was under its boughs, in October, 1814."

"Well, well," says Mr. Benson, "this grows interesting. What next, Edwin?"

"I have discovered," remarks Edwin, "that the description I gave of the qualities of the Linden at our last talk had been written with reference to the European Linden, or Lime, and does not apply to our Linden, or Basswood. With one or two exceptions I can find none reported in this country of great age or size, on account of the depredations of insects. Father, I did not know this when I set out your birthday tree. I had read somewhere that they were injured by insects in the south only. But I shall watch mine. Now let me read some notes I've taken. 'The most remarkable tree on record is a Linden tree at Neustadt, in Wurtemberg. This monstrosity of unknown antiquity is one hundred feet high, and eighteen feet in diameter near the ground. The branches extend one hundred feet on each side, and are supported by one hundred and eight pillars of wood and stone. There is a place of entertainment formed in the head of the tree, reached by a flight of steps. In the hollows of the branches earth has been placed and Gooseberry bushes planted, the fruit of which is sold to visitors. In the public square at Fribourg is a Lime tree planted in 1480, to commemorate a victory, whose branches are supported by timber. In a village near by is another supposed to be nearly one thousand years old. At Knowle, south of London, is a Lime tree of peculiar growth. Many years ago its branches rested their extremities on the soil, and

rooting into it, sent up a circle of shoots that surrounded the parent tree, so that, long ago, it covered a quarter of an acre of ground.' And this is all for this time."

"Well, Edwin, you, as well as the others, have given us more than can be found in Encyclopedias. Now, Jim, do you feel like contributing something?"

Jim bashfully remarked that he had found nothing very new, and so had hunted up something to read that he remembered having seen in print. He thought it contained valuable information for every man to know.

"Just what we want," said his uncle, "let's have it."

"Well, then, here it is: 'The following list presents the woods derived from trees growing in the United States, in most common use for the purposes named, viz.: Building, ship building—Locust, Pine, (deals,) Fir, Larch, Elm, Oak, Teak and Hackmatack. Wet constructions, as piles, foundations, flumes, etc.—Elm, Alder, Beech, Oak, Plane tree, White Cedar, and Palmetto for wharves. House carpentry—Pine, Oak, Walnut, White Wood or Tulip wood, Spruce, Ash, and Sycamore. Machinery and mill-work, frames—Ash, Beech, Birch, Pine, Elm, Mahogany, Oak. Rollers, etc.—Boxwood, Mahogany. Cog teeth—Crab tree, Locust. Foundry patterns—Alder, Pine, Mahogany, and Service tree. Wagon work—Hickory, Ash. Furniture, common—Beech, Birch, Cedar, Cherry, Pine, White wood, Basswood; best—Cherry, Mahogany, Maple, Oak, Rosewood, Chestnut, Cedar, Tulip and Walnut. Carriage building—Ash, Beech, Elm, Oak, Hickory, Black and White Walnut, Cherry, Maple, Yellow Poplar, Locust and Chestnut. Ash is used for the skeleton of the body of superior work, and Beech for that of inferior work. Oak is much used for spokes. Tool handles—Maple, Ash, Hickory and Oak. Let every woods owner preserve the above list, and every time he uses a good tree, plant the seeds, sprouts, or stalks of two others of the same species.'"

"Very good," says Mr. Benson, "every man should have a printed copy of that. Now, Flora, are we to hear from you?"

"I suppose so; but the others have robbed me of part of my laurels by appropriating several items that I was going to mention. Speaking of laurels, how

ever, reminds me to say that I have but recently learned that the Laurel is the same as the Bay tree of the ancients, who used the leaves and berries for crowning their heroes. Later on, the Laurel was used for crowning poets who had distinguished themselves, hence, poet-laureate. The crowns, which for a long time enriched the heads of students taking their degrees in law, divinity or medicine in European schools, were made of the glossy Laurel leaves garnished with the berries, and thus indicate the title of bachelor, bacca-laureate. The title of bachelor grew from the fact that 'they were not allowed to marry lest domestic duties should detract from their literary pursuits, hence, Bachelor of Arts.' In America this tree flourishes only in southern climates, and is of inferior size. In southern Europe it forms a noble tree. It is now getting late, and if some of these items seem of little practical use they are still within range of the main subject, as also is something I will mention for Hiram's benefit, in connection with the 'great Elm' of Boston Commons. The fact was being narrated, of the great hole having closed by treatment, when I, myself, heard a woman inquire if the hole grew up with the boy in it."

After a laugh, Mr. Benson remarks that a subject so exhaustless as the one before them is very appropriately closed for the evening by Flora's poetical and humorous touches. He had intended adding his mite also, which would have been about the Oak, of which the many varieties that have been discovered in this country and Europe are very remarkable; "but now," he says, "it is getting late, and we want a little chat before we say 'good night,' for mark, you've not to rise in the morning until we ring you up."

With the ringing of the bell on Christmas morning the voices of Amy and Frank Snowden might have been heard at the foot of the stairs calling to the laggards to come down, to the great astonishment and delight of the recent sleepers. Directly, Mr. and Mrs. Snowden walked in, and by the time that Mrs. Benson had given her last directions relative to the royal breakfast in preparation, all were assembled together, and she loined them with shining promises in her radiant face of a tangible confirma-

tion of the "merry Christmas" that she wished for all. Then Mr. Benson remarked that he had received a solemn injunction the night before that he should have all parties ready for breakfast a quarter of nine o'clock, sharp. "But," said he, "looking at Mr. Snowden, "we seem to be ahead of time; suppose I show you some improvements I've been making in the shop. Edwin, where do you keep your nuts? better get some and have them ready." "They are up stairs, in the shop. Have you got the key, father?"

"Yes, come on, then, all of you; you'll want to see the improvements some time." So, all started but Reuben; he called to the girls to come back. "What nonsense," said he, "to go out to that dirty place." But Amy, who was slightly initiated, gave him a wink, and told him to "come on." So Reuben lagged indifferently behind until he heard such a shout as hastened his steps materially. Improvements, to be sure! The shutters were still closed, but the room was brilliant with lights, and delightfully warm. But the astonishing part was to see a young horse, long coveted by Hiram, proudly standing with his first saddle and bridle on, tethered to the tree; also, a pair of pure blooded young Alderney heifers. From the bit of the first swung a card bearing Hiram's name, "from father." On the other two were cards for Edwin and Flora; and it is hard to say which was the more pleased. Flora and Amy found letters from their parents announcing a new piano for each on her return home. Edwin found also a good silver watch from his mother. Jim and Frank found each the same, which was delightful, of course.

And what about Reuben? He has been spying around, and has found his card "from father" attached to a robe quite covering some mysterious object. In another instant his cheers and hurrahs bring all eyes to bear, while they read on his nickel-plated bicycle, "Bayliss, Thomas & Co., Coventry, England." And now the breakfast bell rings, and we must leave them.—AUNT MARJORIE.

OUR YOUNG PEOPLE.—We hope our young people will, in future, send for publication in this department more of their observations among their plants.

THE OLD HOLLY TREE.

O, the old Holly tree is a beautiful sight,
With its dark, glossy leaves and berries so bright;
It is gay in the winter, and bright in the spring,
O, the old Holly tree is a beautiful thing.

It gladdens the cottage, it brightens the hall,
And the gay Holly tree is beloved by us all;
It shadows the altar, it hallows the hearth,
An emblem of peaceful and innocent mirth.

Spring blossoms are lovely, and summer flowers gay,
But chill winds will wither and waft them away;
But the rude blasts of winter and autumn may rave
In vain round the Holly, the Holly so brave.

Though pealing bells no longer now,
Ring in the Christmas morn,
Nor children's carols tell the tale,
How Christ, the Lord, was born;

Though wassail shout is heard no more,
Nor Mistletoe we see,
They've left us still the Holly green,
The brave old Holly tree.

—C. P. T., *Lakefield, Ont.*

THE HOLLY IN TENNESSEE.

The evergreen Holly tree is, perhaps, the most attractive of its class. Few persons get a sight of it in its highest perfection, for while it grows on the high lands very well, its chief place is in the alluvial damp lands along our rivers and lakes, where it is a thing of beauty and grandeur, attaining a height of fifty to seventy feet, covered with a foliage of bright green, glossy leaves, rivaling the *Magnolia grandiflora* of the south, with the addition of a splendid array of red berries interspersed thickly with the foliage.—A. H. B., *Brownsville, Tenn.*

PORTRAIT OF JAMES VICK.

A very handsome Crayon Lithographic Portrait of JAMES VICK, the founder of this MAGAZINE, has been prepared, and will be sent, free of expense, to our subscribers for 1883. The portrait is nearly life size, and is an excellent likeness. It is printed on fine plate paper, and measures twenty-two by twenty-eight inches.

Every subscriber desiring it must so state, otherwise it will not be sent. This portrait is not for sale, and will be supplied only to subscribers requesting it.

SEEDLING FRUITS. — There is little probability that seeds from good varieties of fruits will produce better kinds. If you expect to raise more valuable varieties of Grapes by merely sowing seeds of the Delaware, Brighton, Niagara or Prentiss you will probably be disappointed. Artificial cross-fertilization is the key to success.

A STRANGE QUARREL.

I.

It is Christmas eve in the olden time, and in a rustic cottage some good and happy children have already gone to sleep. Two are in a trundle-bed, and two older ones in a larger bed under which the small one will be rolled out of sight in the morning. A clean rag carpet is on the floor, split-bottomed chairs against the wall, and a tall clock, with great moony eyes peeping out above the face, stands slowly swinging its long pendulum in a corner—the same corner where the children's grandfather had placed it long years ago. He was a German, and had taught his family to expect something that should make them glad and happy on Christ's anniversary birthday. The gifts might be simple because he was a poor man, but it had to be something that they did not get on other days. He had remembered that Christ was poor in this world's goods also, and therefore was not ashamed of his poverty.

So this was how it came about that these children had gone to bed to-night talking about Kris Kringle and wondering what sort of presents he would bring them. This was before their more wealthy neighbors—descendants of puritans—had yet learned that the surest way to impress an idea on the minds of children is to connect it with personal pleasure or benefits.

At last the youngsters are settled in their beds, and having discussed all day long their ideas, hopes and wishes regarding their Christmas gifts, they can think of no new thing to say on the subject, and, so, for a few moments are silent, though too excited to sleep, and lie staring at the face of the old clock. Presently the oldest boy exclaims: "Who can guess this

riddle? 'What is it that has a face and no head; has hands and no arms; and runs without legs?'"

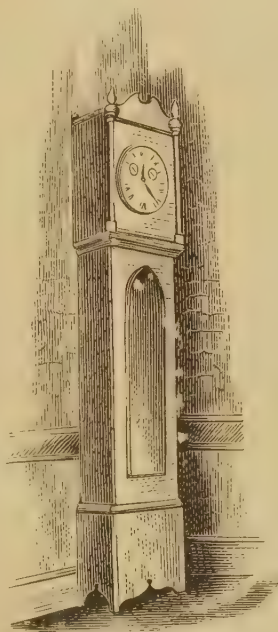
There is a brief silence and then two voices shout: "Clock! Clock!" which is followed by the baby-sister piping out: "Tourse it's tlock; me was jess a doin to fink of dat."

This raises a laugh, which reminds the mother that she has left a burning candle in their room, and she immediately brings it out, telling her children that they had better go to sleep if they want to waken early. So they roll over into restful positions and shut their eyes very tight, each boy declaring that he shall be up first in the morning, while little sister sleepily echoes: "Me be up first too;" and then the drowsy tick, tack, tick, tack, of the old clock soon sends them off to slumber.

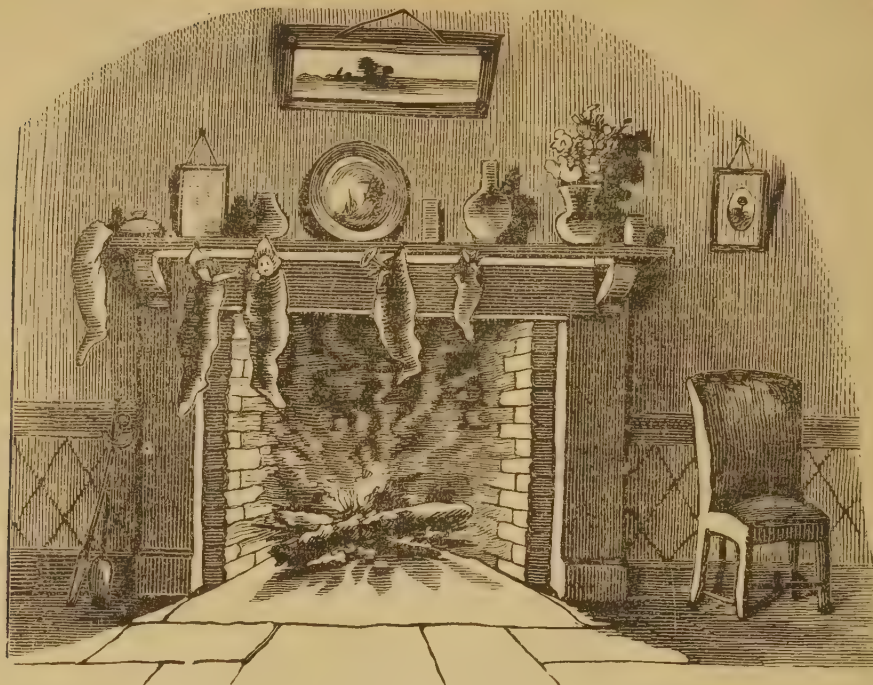
II.

Now it is eleven o'clock, and all the house is silent. In the large living-room of the family is an old-fashioned fireplace, in which lies smouldering a log from the woody mountain slope just behind the house. In a corner of the hearth a merry cricket is gaily chirping out his notes. Though the half-burnt log has been partly covered with ashes for the night, it still throws up leaping tongues of flame, which constantly make weird, dancing shadows about the room, and exposes to view a row of children's stockings hanging from the edge of the mantle-piece. What a queer place for stockings! Perhaps, though, they are hung there to dry after the wash. But there are no two of a size! How odd! But the stockings being odd, how could it be otherwise? It can't be there are a lot of one-legged children in this house—that would be oddest of all, and very dreadful. What does it mean?

Now the old log snaps and crackles, and a brighter flash than before shows that each stocking is stuffed full as a pudding bag—yes, fuller; for the tops gap wide open, revealing hints of trumpets and dolls, painted tin-roosters, dogs and horses, while below are mysterious lumps of something that might mean little packages of almost anything nice. So, after all, these are Christmas stockings, are they? Well, well? Won't the neighbors' children, whose grandfathers



THE ANCIENT CLOCK.



CHRISTMAS EVE.

did not come from Germany, wish that they had, if they should happen in on the morrow?

But what else does the flashing fire reveal? A little mouse has crept out of a hole by the jamb, and stands with nose up in the air, kinking his smellers and twitching his whiskers about at a great rate. Having made up his mind what he will do he calls to the cricket:

"Do shut up your clack, or you'll waken the house, And remember the saying, 'Be still as a mouse;' You keep such a noise when I want to be still, That one would imagine you wish me some ill."

"O, yes," cried the cricket, "I know what you mean, You're up to some trick, and don't want to be seen; If nightly I did all the mischief you do, I'd feel very guilty and keep silent, too."

"It's not that at all," sir mouseie replied, "For at night I must work and in daylight must hide; In the toes of those stockings I smell figs and candy, My teeth are for use, and those dainties are handy."

This hint of what the mouse intends to do, so enraged the cricket that he came right out of his corner and speaks his mind very plainly; says he:

"That which you call work is but stealing outright; Thieves always are silent, and work, too, at night; I'm glad what you covet is under those toys, And that you can't get it without a great noise."

"Not so fast," said the mouse, "you little know the cunning and adroitness of our race. I'm too sharp to try to cut my way through tin-trumpets and horses. I know how to manage: and now

To gnaw thro' those feet I shall climb to the shelf, Then creep down a stocking, and so help myself.

We mice possess smellers that serve us in need, And when we are foraging never mislead."

"Foraging, indeed!" exclaimed the cricket, "very choice names you have for your stealing. And there you go up to the shelf, and down you come and stick your teeth right into the toe of that precious little stocking. Those belong to the children, and I like them and they like me, and if you don't quit this minute

I'll screech till I waken up one of the sleepers, So loudly I'll screech that he can't shut his peepers; I'll screech till I hear him bound out on the floor And savagely rush through that wide-open door,

and then I'll hide and you'll get caught."

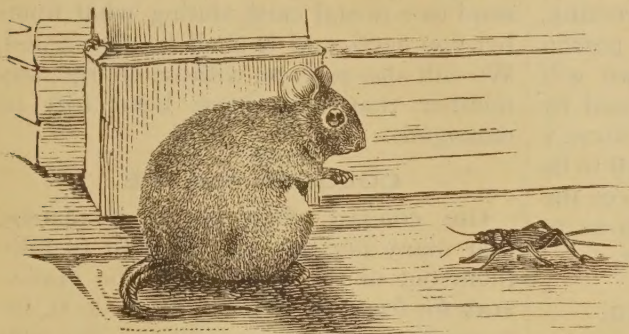
"O, see here now," said the mouse, "you just keep quiet, and I'll drop you down a piece of fig directly. Beside, how silly of you to scream yourself hoarse and get sore throat so that you can never chirp again. I like to hear you sing, myself, sometimes."

Then the cricket rejoined with great scorn: "It seems that I know more of your race than you do of mine, and that besides being a thief you are a dunce.

I'm too angry to laugh, or my sides I should crack, To think I could screech myself hoarse in the back, When everyone knows that each cricket that sings, Makes his chirp with the valves at the top of his wings!

And now it is Christmas, for that clock is striking for midnight, and this one on the mantle is commencing. You'd better scamper home in a hurry, for when they stop I shall begin."

As the old clock repeats its twelve slow strokes, and the small one clatters off its short, brisk ones, the father partly rouses, and then, thinking he hears a faint rattle of paper, turns a listening ear, but "that cricket," he says to himself, "keeps such a shrieking that I'm sure of noth-



AN EARNEST CONVERSATION.

ing." So up he gets, and stepping softly toward the fire-place, thinks he sees something running along the mantle and then disappear, but is not sure. The cricket hops to a hiding place and chuckles as he thinks of the frightened mouse, and says to himself, "I told him so."

Presently all is still again, and until the early morning, when the roosters begin to crow for daylight to hurry up. Then the father goes out and builds up a big fire for his children to dress by, and goes back to bed again. And now the children waken up and tumble out of bed pell-mell, and rush to look at their stockings, but not to touch them (the mother had said) until all are dressed, washed and combed.

And now directly they are ready, and O, such a time! It is no use trying to describe it. Everybody now-a-days knows what it is like; but they don't know how a little boy wonders all day long what made the big hole in the foot of his stocking. His brothers say that it was there before; but he and the cricket know better.—"PROXY."

STRANGE VIOLETS.

Perhaps you may be interested to hear about some strange Violets we have. About a year ago papa brought a root of *Fraxinella* from a garden, and a Violet sprang up among the roots and unfolded dark purple blossoms. When it stopped blossoming it was divided and transplanted. This fall we saw open seed pods, but we had seen no blossoms. On closer examination we found that the seed vessels were formed under ground an inch or two, and we cannot find any blossoms under ground. I send you some seed vessels which we dug up, and also a leaf. Can you explain this singular growth? I have a

Geranium raised from a slip given me; it has not yet blossomed, but the lower leaves fell off, and soon a strange growth came up at the roots, a mass of small leaves I might call them. Is the growth healthy? The plant still grows at the top, the stem is an inch and a half high. I send one of the leaves.

There is one more curiosity which I should like to mention. My sister, MARGARET, cut one of her yellow *Chrysanthemums* and put it in water, where it stayed a week or two and withered. When I took it out I found it rooted. It had not one single leaf or one node, and yet there were little white roots an inch long, at least. I put it in earth. This was a few days ago. Do you think it will push up leaves from the roots? We enjoyed the seeds you sent last spring, their flowers were very sweet; I hope to enjoy the bulbs this winter.—M. F. C., *Troy, N. Y.*

Our youthful little friend has observed much closer than most people do. Now, how many of our young people have observed this peculiarity of the Violet, so well described here? It is a fact that Violets often produce seed in this manner. No blossoms had been seen, still there had been blossoms there, but they were of a very peculiar character; in fact, the flowers had no petals, or if any, they were so small as only to be seen by the closest examination with a magnifying glass. The ovary, the pistil and the stamens of each flower were enclosed in the little green calyx, the whole appearing like a little bud. The calyx never opened; but the pollen grains, while yet remaining in the anthers, sent out little filaments, or pollen tubes, to the stigma, passing down into the ovary and fertilizing each one an ovule, which then became a living seed. The weight of the seed vessels appears to bear them downwards to the ground, and as they increase in size they become buried under leaves, and sometimes enter the ground when it is soft and mellow. Most of our readers are, of course, familiar with the fact that the pods of the peanut so bury themselves. There is quite a variety of plants that produce these little closed flowers, as they are called; but the same plants also produce perfect flowers, or those of the usual form. They have been subjects of close investigation by a number of celebrated naturalists, and among them DARWIN, who gave them much attention, and has written in an interesting manner concerning them. The closed flowers produce as much seed as the perfect flowers. The *Geranium* leaf appears all right. The *Chrysanthemum* will probably not grow into a plant.

PREMIUMS.

As a little compensation to those who labor among their neighbors in getting up clubs we propose to give one of our **FLORAL CHROMOS**, on paper, to every one who sends us a club of *Five Subscribers*; and for *Twelve Subscribers* one of our **CHROMOS ON CLOTH AND STRETCHER**, both sent postage free. To any person sending us *Twenty Subscribers* we will forward by express, expressage paid by us, one of our **FLORAL CHROMOS NICELY FRAMED IN WALNUT AND GILT**. All to be at club rates—\$1 each. Please select the chromo you wish, or, if you wish us to select for you, please state this fact.

OUR MAGAZINE FOR 1883.

This number completes the **MAGAZINE** for 1882. We design to make it better than ever next year. Many of our subscribers would do their neighbors a real good by getting them to subscribe for 1883. Only a **DOLLAR** a year for clubs of five, and eleven copies for \$10. There is more matter and more illustrations than you can purchase in any book for \$5. Send in names early, so that you may receive the first number before Christmas.

BINDING THE MAGAZINE.

We will bind the **MAGAZINE** in nice cloth covers, for any subscriber, for 50 cents, and return the book, with the postage or expressage prepaid by us. If subscribers will send us the numbers in season, we will have the volume bound and returned, if possible, before the Christmas holidays. Please give your name on the package when sent, so that we may know to whom it belongs.

VICK'S FLORAL GUIDE FOR 1883.

Our **FLORAL GUIDE** for 1883 will be ready to send out in December. We design to send it to every subscriber as a holiday present. It will be a very handsome work, good enough for any one, and handsome enough for the parlor. If any one is accidentally omitted, please notify us by postal card.

NOT A BAD HOLIDAY PRESENT.

A subscription to our **MAGAZINE** would not be a bad holiday present. Our price is so low that we do not feel as though we were pleading our own cause when urging people to subscribe.

LOST NUMBERS.

This number completes the **FIFTH VOLUME** of our **MAGAZINE** and the year 1882. It is quite probable, through some mistake, some numbers may not have been received, which will leave the volume incomplete. If this is so, please send us a postal card, stating what number you need, and it shall be forwarded. We will also replace, without charge, any number that may have been lost or damaged.

COLORING PLATES.

Our colored plates are so handsome that many persons are tempted to take them out of the numbers of the **MAGAZINE** for framing. Please don't do it, for it spoils a handsome volume. We will send our subscribers any colored plate they desire, that has been published in the **MAGAZINE**, for **FIVE CENTS** each.

A GARDEN BOOK

Besides this **MAGAZINE** we publish **VICK'S FLOWER AND VEGETABLE GARDEN**, an elegant work, with numerous illustrations and six very beautiful colored plates—five of flowers and one of vegetables. It is a book of one hundred and seventy pages. Price, 50 cents bound in paper covers; \$1 bound in cloth.

BOUND VOLUMES.

Bound volumes of this **MAGAZINE** make splendid and useful holiday presents. We can furnish volumes from the commencement—1878-79-80-81-82—for \$1.75 each, or the five for \$7.50. We will prepay the express charges. Bound volumes for 1882 will be ready by the 5th of December.

DECEMBER NUMBER.

A good many subscribers have sent us the eleven numbers of the **MAGAZINE**, to which we are to add the December number and bind and return the volume. It is likely that in some cases such persons will receive the December number by mail. If so, please do not return the number, but present it to some friend.

CLOTH COVERS FOR MAGAZINE.

We will furnish elegant cloth covers for the **MAGAZINE**, to our subscribers, for 25 cents each, and prepay postage. Any bookbinder can put on these covers at a trifling expense.

